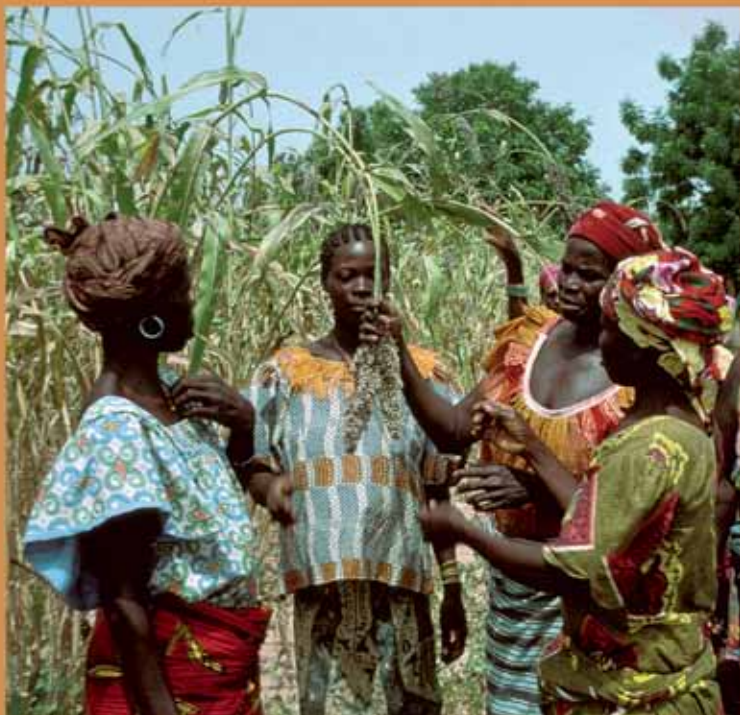




Innovating with rural stakeholders in the developing world

Action research in partnership

G. Faure, P. Gasselin, B. Triomphe,
L. Temple, H. Hocdé – SCIENTIFIC EDITORS



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Scientific editors

The Technical Centre for Agricultural and Rural Cooperation (CTA) is a joint international institution of the African, Caribbean and Pacific (ACP) Group of States and the European Union (EU). Its mission is to advance food and nutritional security, increase prosperity and encourage sound natural resource management in ACP countries. It provides access to information and knowledge, facilitates policy dialogue and strengthens the capacity of agricultural and rural development institutions and communities. CTA operates under the framework of the Cotonou Agreement and is funded by the EU. For more information on CTA, visit www.cta.int

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Foreword

Agricultures tropicales en poche is a recent collection of practical handbooks in French divided into three broad categories: animal production, plant production, and cross-disciplinary topics. Some of its titles, like this one, are also available in English as part of the *Tropical Agriculturist* series.

These manuals are meant primarily for agricultural producers, technicians, and consultants. They are also useful as reference material for those working in the technical services, students in institutions of higher education and those involved in rural development programmes and organizations.

This book, on action research in partnership, fall within the collection's cross-disciplinary category. It addresses an important aspect of the changes taking place in field research for improved response to social demands. This approach has a dual objective:

- On the one hand, a greater involvement of rural stakeholders in research processes, i.e., in defining goals, in executing activities, and in evaluating results;
- And, on the other, involving researchers in field activities alongside their rural partners.

This book not only presents information and basic concepts in a very practical way, it also develops and illustrates methods and tools pertaining to action research in partnership. It proposes a new research approach tackling the increasingly complex problems confronting rural development stakeholders. It thus prepares the reader to better address complex situations requiring interactions with a diversity of stakeholders.

The proposed approach is fully in line with systemic approaches that were successful in the 1980s and 1990s, but it goes far beyond them in several ways and tries to overcome their lacunae and shortcomings. It has been truly satisfying to witness research teams extending today the work done in the past. Their ethical standards, in particular, are more stringent and are better spelled out. We can but salute this change in attitude on the part of committed researchers. While it does not lead to an increase in scientific publications, it is far more respectful towards and meaningful for their research partners. Moreover, the authors do not gloss over the difficulties, limitations, and pitfalls of such approaches.



This book has been written by a capable group of authors with varied backgrounds and profiles. A point worth emphasizing is that their discussions during the phases of drafting, writing, and correcting the text were sustained and fruitful. The result is a text that shines with the interdisciplinary richness of their diverse experiences. We thank and congratulate each member of this group and in particular the scientific editors for their teamwork – which in itself is a glowing example of effective partnership.

Philippe Lhoste,
Chief editor of the *Agricultures
tropicales en poche* collection



Foreword

In this publication scientists engaged in partnership with farmers and other stakeholders in agricultural research and development (ARD) in the South have, in this publication, elaborated these experiences into a conceptual and analytical framework, which will support the further development of ARD practice by a host of professionals. They show how bringing different types of knowledge in action can create new knowledge and competencies. The scientists not only appreciate traditional or local knowledge but obviously also local creativity and capabilities as well.

The path taken towards action research in partnership described here has many parallels with the one followed in Anglophone ARD, growing out of an analyses of the strengths and weaknesses of Farming Systems Research and Extension in the 1970s and 80s. Scientists recognised that smallholder farmers could and should be partners in analysing their own situation, in conducting research and in analysing results. Over the past couple of decades, this recognition has led to diverse forms of participatory research, including Participatory Technology Development (PTD), in which scientists and farmers carry out joint experimentation to develop technologies appropriate to local conditions. The PTD approach was based on learning from the practical experiences of primarily non-governmental organisations (NGOs) working with farmers in Africa, Asia and Latin America. The concept was synthesised during a workshop in the Netherlands in 1988. It challenged the conventional paradigm of transferring technology from research through extension to farmers. It appreciated that farmers are innovators and researchers in their own right. Only slowly did PTD gain recognition in mainstream ARD. After further experience and reflection, it evolved into “Participatory Innovation Development” (PID), encompassing the development of not only “hard” technologies but also “soft” innovations such as in social organisation.

The initial theory to underpin the practice of PTD and later PID lay in the concept of Agricultural Knowledge and Information Systems (AKIS): creating synergies between multiple stakeholders who make complementary contributions to concerted innovative action in agriculture. This was further developed in the writings on Agricultural Innovation Systems (AIS), promoted most recently by the World Bank, which emphasises the role of actors beyond the triangle of researchers,



extensionists and farmers to include other relevant stakeholders such as the private sector. We are now witnessing various initiatives to bring together learning alliances and multi-stakeholder platforms for change, involving people from different types of groups and institutions concerned with ARD at international, regional and national level.

So, too, in a similar but not identical process in Francophone countries – with only occasional cross-fertilisation with developments in the Anglophone sphere – scientists and NGOs seeking to make agricultural research more beneficial for smallholders have been exploring ways to move research out of the stations and laboratories into the real world of farming in the South. This book traces the transition from research controlled by scientists – even when implemented in the field, with the objective of understanding actors’ motivations and processes – to a *partnership* in ARD. In this partnership, all actors – not only the scientists – develop a better understanding and create new knowledge through their collaboration in research, including joint analysis. It reveals how the intensive interaction of scientists with other partners working together in farmers’ reality leads to more relevant and applicable research results.

The focus on partnership allows more deliberate attention to the process of building the alliances of different actors at the field level and to the issues of ethics and governance involved in this collaboration. The result is likely to be a more equitable form of partnership that strengthens the capacity of the actors – especially the farmers – to influence decision-making in the research at hand but also at other levels of decision-making about ARD. These other levels are crucially important. Even effective partnerships require conducive institutional contexts and framework conditions, such as remunerative markets, access to services and inputs, and active control of extractive practices and corruption, to be of benefit to their participants. Effective multi-stakeholder processes in ARD are necessary, but not enough.

It is encouraging to see that once more, following a rich tradition, scientists in Francophone ARD institutions emphasize the relevance and effectiveness of scientists’ engagement in supporting innovation processes on the ground. In their conclusions, the authors of this booklet are asking questions very similar to those being explored by the international PROLINNOVA network (www.prolinnova.net) in its



attempts to promote PID in agriculture and natural resource management, and by the Convergence of Science (CoS) partnership of West African universities with Wageningen University in the Netherlands. We welcome the opportunity for joint exploration of these issues in closer collaboration with Francophone ARD institutions in both South and North in the coming years.

Anglophone researchers in the South and the North are becoming increasingly aware that it is by strengthening agricultural innovation systems – the linkages and processes of interaction among multiple and diverse stakeholders – that family farming will be able to adapt more quickly to changing biological, social, institutional and political conditions, including climate change. The experience, insight and conceptual framework offered in this publication could enrich thinking and action among actors in ARD also in non-francophone areas. It is therefore to be hoped that it will soon become available also in other languages.

Ann-Waters-Bayer
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The Netherlands



Introduction

The ability of research and development in the agricultural and agro-food sector to meet current social demands and to contribute to sustainable development and poverty alleviation is increasingly being called into question.

These doubts, while not new, have encouraged the implementation of participatory approaches that involve stakeholders of the rural world (producers, organizations, businesses, associations, technicians, local communities, etc.) to define research or development goals, in the execution of activities, and in evaluating results.

While action research in partnership (ARP), the subject of this book, is based on knowledge drawn from other participatory approaches, it has a broader objective. Not only does it try to get researchers to help solve problems faced by stakeholders, it also endeavors to involve the researchers in the action itself.

This requires a disciplined approach which meets the expectations of the various participants and which guarantees validated final results, all within a framework of a negotiated partnership in which each stakeholder's role is clearly defined for every stage of the approach. This development in research practices is essential to better co-design and support the technical and organizational innovations required for overcoming complex challenges.

The number of initiatives that bring researchers and development stakeholders together is increasing rapidly at the international level and in the agriculture of the South in particular. Numerous teams and institutions of the North and the South are participating in them. Lessons learned and knowledge acquired from these experiments form the basis of this book.

Objectives

This book's objective is to help raise the awareness of research and development stakeholders and to prepare them for implementing ARP approaches and practices. In a more general way, this book presents keys to reflection and action for improving the relevance and effectiveness of operations and research practices with stakeholders in the domains of agriculture and agro-food, the environment, and, more generally, rural development in the countries of the South.



By combining theoretical inputs, the presentation of a generic approach, reflections on the different components of ARP, and the analysis of case studies, this book provides a conceptual and methodological frame of reference for understanding and implementing ARP.

This book is aimed at a non-specialist audience:

- Researcher-practitioners and development stakeholders such as technicians, elected officials and representatives of professional or non-governmental organizations already engaged in research with stakeholders and who want to evaluate or improve their practices;
- Researchers and technicians who want to improve the relevance and effectiveness of their activities in supporting innovation processes ;
- Funding agencies and project or institutional managers who would like research and projects involving ARP be implemented more often;
- Students and teachers of agricultural and social science courses relating to issues of development, innovation processes, and relations between research and civil society.

Contents

This book introduces and discusses the following topics:

- References to the original concepts of and subsequent empirical advances in the knowhow and implementation of action research;
- Knowledge, methods and fundamental tools for better implementing ARP in situations that are complex because of stakeholder diversity or because of the challenging issues involved;
- Illustrative examples drawn from ARP experiences;
- A discussion of the ARP approach's limitations and the pitfalls to avoid;
- Recommendations to assist practitioners in their reflexive analysis.

The first section outlines the history of different action-research approaches. It explains why a fresh way of undertaking research is required to address complex issues raised by civil society. It concludes by presenting some seminal principles underlying an ARP and by discussing its different phases.

The second part focuses on the central issue of constituting the partnership that will form the basis for undertaking future activities. It stresses the importance of taking into account the different strategies of each type of stakeholder and of learning to manage the asymmetries inherent in any partnership to establish trust and maintain a dialog. An example drawn from an experiment in Brazil illustrates these points.



The third section presents the ARP approach by highlighting mechanisms for managing the approach by all the concerned stakeholders. Methods and tools are introduced using case studies and the lessons to be learned from them. Special attention is given to managing collectives and to communication between stakeholders. These points are illustrated by describing an experience in Burkina Faso.

The fourth section is devoted to analyzing the results of ARP, reaching beyond the mere creation of knowledge useful to solve a problem. It also addresses the issue of the evaluation of activities and results by the stakeholders.

In the fifth and final section, two strategic aspects in the implementation of an ARP are presented: ARP training, initial as well as ongoing, and the modalities of funding of projects and corresponding activities.

This book is not a manual nor does it present a cookbook approach to be applied step by step. Each section emphasizes the generic aspect of the proposed approach and the diversity of possible choices. Also highlighted are the strategic questions that will help direct implementation, in a necessarily unique manner, of ARP that fulfills the requirements of the specific context and historical background of the stakeholders and their environment.

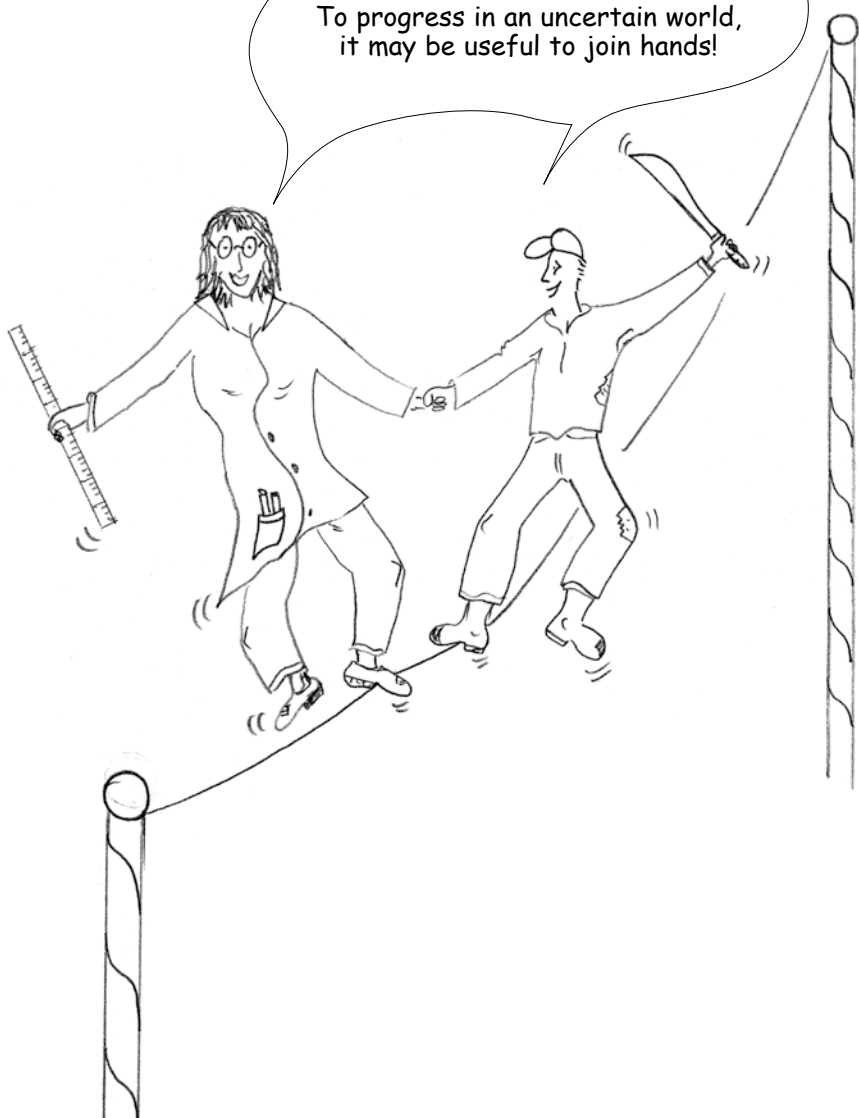
Each section or chapter can be read independently. The index, cross-references, and the glossary will help the reader navigate the text.



Part 1

Foundations of action research in partnership

To progress in an uncertain world,
it may be useful to join hands!





1. Action research: from its origins to the present

N.-E. Sellamna

The history of the emergence of action research begins when researchers stopped being satisfied with merely creating knowledge and began to do so to help resolve important social issues in a practical manner. “If you want to truly understand something, try to change it.” This famous line from Lewin (1958), acknowledged as the pioneer of action research, succinctly encapsulates one of its fundamental characteristics, that of combining knowledge and action in the same approach.

At the same time, the term “action research” reveals its ambiguity because any research activity, not only action research, can potentially contribute to short- or long-term changes. To address this challenge, we will try to better specify the theoretical and methodological foundations of action research by discussing its disciplinary contexts and the diversity of approach types.

Action research finds its roots in psycho-sociology, sociology, and anthropology. It was subsequently deployed in disciplines such as medicine, education, economics, history, communications, and, what interests us here, agronomy and animal production in the context of agricultural development.

Virtually all disciplines today refer, in one way or another, to the practice of action research, as can be seen from the plethora of terms in use: action research, action anthropology, dialogical research, community research, action learning, collaborative action research, or action science. The French-speaking world talks about *recherche-action expérimentale*, *recherche-action participative*, *recherche-action stratégique* or *recherche-intervention*.

The sections that follow describe different types of action research used in specific professional, conceptual, or geographical contexts.



Origins of action research

The term “action research” goes back to the 1940s and to the work of Lewin in psycho-sociology, on personal changes (for example, in the study of food habits) or social changes (for example, in the study of racial prejudice), and on learning processes.

The basic postulate was that knowledge and the taking of cognitive or mental processes into account at the collective level are a primary vector of social change. The corresponding research is undertaken in an experimental context with the help of an “agent of change” (who today we would call a “facilitator”) responsible for shaping the methodological framework and for managing and driving the process. The group is where individuals learn to overcome obstacles to change by modifying their behavior, attitudes, perceptions, and representations.

For Lewin, an understanding of group life leads to an understanding of the conditions and the identification of the force fields that enable or prevent change. Thus, the experience and learning of individuals within an experimental group creates a context conducive to change. This context can, subsequently, be transferred to other locations with a consequent wider social impact.

Criticisms and evolution of action research

Lewin’s approach was successfully put to use in fields such as education, industry, and community development.

It was also subjected to criticism. First and foremost, some propositions, according to which change was assumed to be a question of individual learning and the obstacles to change a mere lack of information, were contested. These propositions assumed in effect that all prejudices, stereotypes, resistances, and power relationships would disappear thanks to information, which itself was considered neutral.

A second criticism was leveled at action research’s linear and optimistic vision of an inevitable progress once “forces” opposing it were overcome. Moreover, Lewin’s action research was a process controlled by one or more external researchers, specialists in social sciences, working with their own objectives, or intervening as consultants to resolve a set of problems.

From this criticism was born the distinction between “internal researchers” and “external researchers,” especially in the education



field, where, interestingly, it was even claimed that educational action research could be undertaken without the intervention of any researcher. According to Lapassade (1993), in such a context, “It is the teachers who themselves conduct the research, sometimes in conjunction with consultants external to their establishment [...]”

At the same time, the concept of emancipatory action research appeared, very similar to the concept of empowerment used by other authors such as Freire (1969). These two concepts correspond to the observation that practitioners conducting this research “from the inside” enter a cycle of reflection and evaluation of their own practices. This cycle leads to the introduction of innovative practices when compared with the hidebound bureaucratic and coercive habits that normally govern their domain.

Action research in the development field

Numerous researchers working in the domain of community development, empowerment of rural organizations, and adult education refer to an emancipatory type of action research, implicit in the term “participatory action research.”

Such approaches were developed in several countries, most notably in Brazil in the 1960s (Freire, 1969), in Colombia in the 1960s and 1970s (Fals-Borda and Rahman, 1991) and in Tanzania in the 1970s (Hall, 1974).

These efforts had an aim in common. This was to change to change the power relationships between rural populations and policy makers. They began with the observation that conventional sociological or anthropological research, even the classical action research of Lewin, was unsuccessful in resolving conflicts related to the involvement of local populations in development. It sometimes even served the interests of the powers-that-be to prolong or consolidate the established order.

The Italian philosopher Gramsci (1953) introduced the notion of “organic intellectuals” produced by all human groups. These organic intellectuals are defined more by their political- or technical-management role in their social environment than by the nature of their work. In rural areas, everyone can thus become an intellectual in his own environment, rural inhabitants as well as scientists, and everyone has some knowledge that, once valorized and used, can contribute to social change. Conversely, these approaches demystify the scientists’



role and position, supposedly neutral and independent, yet play a role in the dominant system.

For his part, Freire (1969) contributes the concept of man as subject. According to him, education of the oppressed people should arise from their own initiative. The educators' role is to help them develop a critical reflection ("conscientize" them) so that they can understand the sources of their oppression and unite to put an end to it.

Action research in agriculture

Systemic analysis also had a significant impact on the action-research approaches used in the agricultural domain because of its ability to take into account interactions between different elements of a system to explain the system's functioning and causal relationships.

Remember that systemic research is the basis of approaches such as development research (Jouve and Mercoiret, 1987), agrarian systems (Mazoyer and Roudard, 1997) and farming systems (Norman and Collinson, 1985), which were in vogue in the 1970s.

These approaches were put into practice for different reasons. Some had the aim of promoting technology transfers. Others focused on characterizing in some detail the diversity and complexity of farms by placing the farmer and his family, considered as rational actors, at the heart of the analysis of the production process.

Taken as a whole, these approaches promoted the idea that research should accompany changes in existing agricultural societies and should strengthen their ability to adapt themselves to constraints or to seize opportunities. According to these approaches, research can no longer be satisfied by proposing agricultural production models and technologies developed in the industrialized world for adoption in very different contexts.

The conceptual connections between systemic research and action research are therefore quite pronounced. Thus, as noted by Robo (1996), "Action research belongs to a systemic and multi-referential approach. It affects all factors that play a role in the object of research, thus minimizing the relative importance of any one of them in particular."

In addition, at a practical level, several systemic- or research-development approaches have there as objective technical, social, or organizational change and, in general, they call for the participation of users or



beneficiaries in the research process. They mobilize various methods to take the diversity of farmers into consideration and frequently translate into practice in the form of real-world experiments (Chambers, 1997).

In the 1980s and 1990s, work by Rölöing (1990) and his colleagues from Wageningen University in the Netherlands provided another illustration of the strong links between systems research and action research. Their approach, known as AKIS (Agricultural Knowledge and Information Systems), consists of analyzing information and knowledge as constituents of a system. The participants can model this system using qualitative methods and, in particular, graphical representation. These models help clarify, and allow comparisons of, perceptions and implicit visions of all sides. On this basis, the participants develop plans of action to solve the identified problem and arrive at a model of change acceptable at the cultural and systemic levels.

In spite of their many similarities, in many ways system research is quite different from action research: priority accorded to knowledge creation over action, the absence of explicit mechanisms to promote participation by all stakeholders in the research, and insufficient emphasis on the practice of “reflexivity,” i.e., the actors’ capacity to reflect in an ongoing way on methodological choices and the results obtained.

Action research in all its forms

We see, therefore, as Perrenoud (1988) remarked, “The multiplicity of forms of action research results from the diversity of situations, of the partners, and of the contracts that link them.” In each period and in each environment, action-research approaches have been influenced and revitalized by “dominant” disciplines: psycho-sociology in the 1940s, sociology (of organizations, of work) in the 1950s, political sciences in the 1960s, systems theory and educational sciences in the 1970s, and, more recently, management sciences.

Geography too plays a role in influencing the various forms of action research. Thus, in the United Kingdom, action research is very actively undertaken in the educational domain with emphasis on improving educational practices. In the United States, it is firmly established in the domain of social well-being and strives for social change, and is linked to citizen activism and community organization, with researchers involved in the causes that their research defends. In the French-speaking world, action research finds full expression in the



educational domain and also in rural development (Chia, 2004). It borrows heavily not only from systemic research but also from business-management sciences.

Figure 1 is a simplified representation of the diversity of action-research types, a diversity that is as much theoretical and thematic as it is geographical.

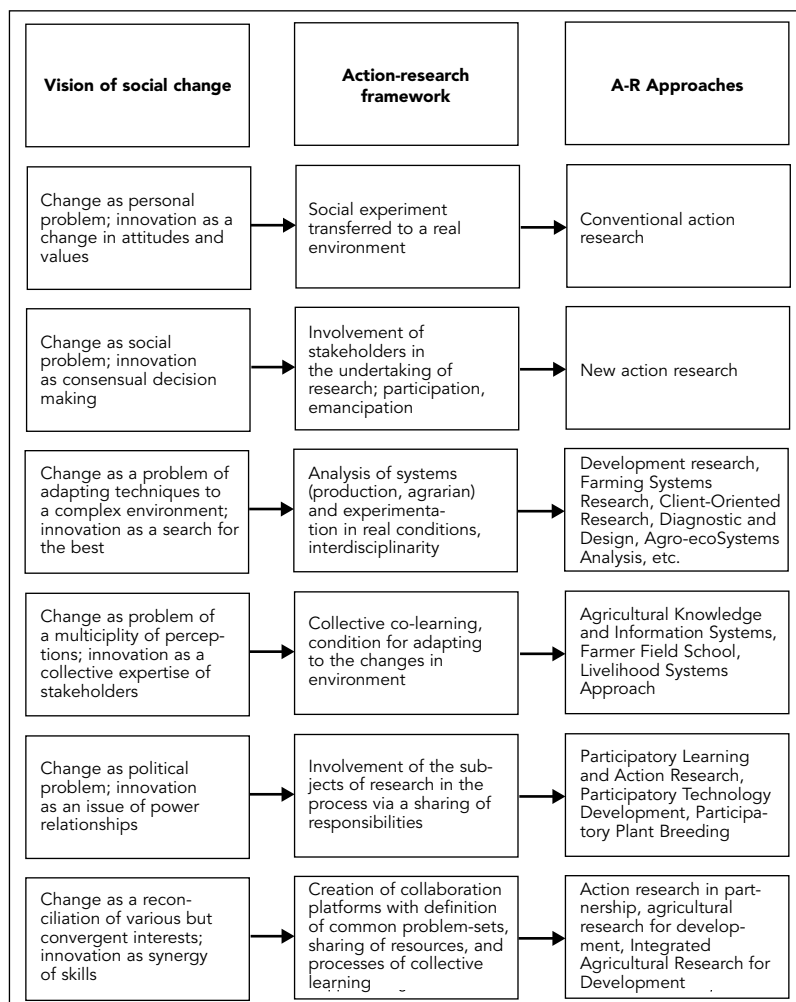


Figure 1. Different types of action research.



Action research in partnership

In the face of this diversity of approaches, it is time that we specify what is meant by “action research in partnership” (ARP) in this book.

ARP is a form of action research that has a threefold objective: producing new knowledge, resolving a problem identified by the stakeholders, and building the capacities of these stakeholders for an increased autonomy and self-sufficiency.

Like any action research, it is based on four principles:

- A combination of a will to change and a research intent;
- The dual objective of resolving the problem at hand and of advancing basic knowledge;
- The concerted effort of researchers and stakeholders on the ground;
- An ethical framework negotiated and accepted by all.

The term “partnership” emphasizes the fact that it is a collective that is undertaking the action research. The partnership is a grouping of different stakeholders who preserve their independence but who share human and material resources, either through self-interest or by obligation, to achieve the shared goal of resolving a particular problem.



2. Why undertake action research in partnership?

P. Gasselin and P. Lavigne Delville

Before we can discuss how to undertake action research in partnership, we have to ask: why do it at all? This chapter provides answers.

Both in its philosophy and in its approach, ARP breaks with the conventional modalities of agricultural and rural development research. It aspires to respond to the new requirements of research, to be more suited to society's demands and needs, as well as to the evolving relationships between practitioners, citizens, users, and researchers. It aims to structure the research and action processes together, a co-production of knowledge and solutions by researchers and stakeholders.

Such an ambition depends on cooperation between professional researchers and stakeholders striving to create the dynamics of change. ARP requires the establishment of partnerships between the different stakeholders and a joint management of the research process.

Main justifications

Why would researchers conduct an ARP with farmers? Why would social stakeholders collaborate with researchers in undertaking a project to transform rural society? Why would businesses and territorial communities invest resources in research? These questions have been the subject of several studies in philosophy, educational sciences, sociology, history of sciences, management sciences, and other disciplines. Most of the answers advanced are not specific to the agricultural world, but can be derived from the wider evolution affecting society and science.

ARP justifies itself on two broad fronts. The first relates to the socio-political domain: the role of knowledge creation in the processes of change and the relationships that researchers have with practitioners, users, and citizens. The second relates to the epistemological domain: the design of knowledge and of science. The “action” aspect and social utility of knowledge is as important as the “knowledge creation” aspect.



■ New legitimacy of stakeholders and their knowledge

New questions for agricultural research

Changes observed in the last three decades in rural development and the new roles played by agriculture (market or non-market, political, economic, social, environmental) add impetus to the questions addressed by agricultural research.

These questions, which were predominantly technical, “What techniques should be invented and widely disseminated to help farmers in their activities?” became, in the 1990s, socio-technical: “Why aren’t the techniques offered being used? How to ensure their adoption?” Today the paradigm has shifted still further: “How to initiate innovation processes that meet the requirements of the concerned stakeholders?”

At the same time, it is increasingly being accepted that stakeholders affected by a problem – farmers, their professional organizations, businesses in the concerned sector, public authorities – have a legitimate right to question the work of researchers on agricultural and rural issues and to actually participate in tackling problems that may arise. According to some authors (Akrich *et al.*, 1988; Callon *et al.*, 2001), their participation actually increases the chance of resolving the problem. The question then arises: how best to integrate them into the research process?

Scientific knowledge is not neutral

Changes in the rural sector are related to wider changes in the design of science and its relationship with society. In the 1990’s, these changes marked a break with a redefinition of the role of the stakeholders. The idea of an neutral and objective science, capable by itself of defining problems, of being able to handle complex issues (for example, “What is a drug?”, “What is a microbe?” or “What is an animal’s well-being?”) and to identify solutions, was being increasingly called into question (Stengers, 2002).

Some of the answers do depend on the political, socio-economic, and cultural context and on the strategies of the stakeholders concerned. Production of knowledge or the creation of a new technology cannot be envisaged without assessing its impact on the real world, especially the risks that may be introduced.

This position requires not only the researcher but also the judge, the journalist, the philosopher, the elected official, the consumer, and the



citizens to develop their own analyzes for participating in defining problems and identifying solutions. Nuclear accidents and agricultural, food, health, environmental crises, for example, require society to be more than a research sponsor or beneficiary. Society has to be responsible and make science everyone's affair by organizing the participation of all stakeholders in an extension of the democratic ideal.

Competent stakeholders with legitimate knowledge and concerns

Another major change is helping redefine the relationships between science and society. Science has long claimed to objectivize facts by creating knowledge that is different from "profane" knowledge, especially the knowledge of the concerned stakeholders (inevitably localized, biased due to social structures or their own agenda).

Today, an epistemological and social revolution has lead to the realization that the knowledge and skills of stakeholders have value in resolving a given problem. This can be collective knowledge, including that of organizations, institutions, technical services, or knowledge of individuals such as professionals, owners of specific expertise (farmers, technicians, entrepreneurs, craftsmen, workmen, etc.), or even citizens wanting to involve themselves in local public affairs. Their knowledge is practical in nature and does not replace scientific knowledge (Olivier de Sardan, 1995).

Researchers no longer have a monopoly on objectivity, using their research to distance themselves from the social world. The specific context also plays a determining role. Consequently, it is as much by the meeting of points of view and knowledge as by taking the real complexity into account that objectivity can be achieved. The skills of the stakeholders and the legitimacy of their concerns and knowledge are thus the underpinnings of a renewed scientific approach, of an "open-air science" which involves, or is even propelled by, the stakeholders concerned (Callon *et al.*, 2001).

Research as a tool for learning and change

Stakeholders participation in defining and conducting the research process is also justified by social and political goals. Knowledge creation then becomes an adjunct, sometimes even a pretext, for involving participants in cross learning and/or in helping bring about transformations in social relationships (Freire, 1969; Touraine, 1978).



In such conditions, research can become a powerful tool to reinforce stakeholders' legitimacy as well as bolster their initiative and their ability to be heard. It is a matter of deepening the knowledge of the problems and issues at hand, of triggering a wider dialog that leads to a recognition of the problem being experienced by certain stakeholders, and of engaging collective processes of research and validation of solutions. In this context, ARP appears as an approach for a simultaneous production of knowledge and of new social relationships which are the result of a will to change and a research intent (Liu, 1997).

Researchers' involvement in an ARP can also be taken to be a voluntary approach for deeper interactions with stakeholders in the interest of bringing about changes and for a willingness to adopt values shared with the ARP collective (see Chapter 3 "Fundamental principles of an action-research partnership approach," page 41). It is one way of translating ethical and political requirements.

II D A response to social actors' new expectations

Social actors, whether they be considered citizens facing new problems, professionals, or users of a space or a service, have concerns and expectations. When research is defined only by researchers, as is the case with conventional research and based on concerns that are not those of the actors, it can only partially be successful in meeting their expectations. Only incomplete results are usually forthcoming, they are often delivered late, and not always presented to stakeholders or converted into a form suitable for them. Consequently, the real utility of conventional research is often limited.

Participatory research goes a little further in the dialog, but often it does not discuss the definition of the problem itself. ARP, on the other hand, not only puts the problem's definition up for discussion, but also the formulation of research topics and the structure of the research protocol. In addition, it includes a debate on the results. For these two reasons, it can arrive at responses more in line with stakeholder aspirations, which can, however, also be more demanding at times.

II D A need for effectiveness in an uncertain and complex context

ARP also enhances research relevance and effectiveness in uncertain and complex contexts.



Alliance between social actors and researchers

Social actors and researchers need each other in order to confront modern challenges. Scientific practice is becoming more reflexive, i.e., it questions itself on its objectives, on the methods used, and on the way the results are obtained. Its own shortcomings and failures stare it in the face: the inability to identify in time major dangers such as asbestos, mad-cow disease, or AIDS; the controversies amongst scientists on genetically modified organisms (GMO); and the inability to resolve major social issues such as unemployment, poverty, rural exodus, or the food crisis.

It is therefore essential to improve the way complex social issues are addressed by researchers and actors each of whom cannot act without the other. Sometimes this improvement is radical and substantial, especially when the ARP arrives at a solution or knowledge that it could not have without the concerned stakeholders' participation (a new equitable and efficient way of distributing irrigation water, for example). In other cases, this improvement cannot be objectively measured by its impact on society or on the knowledge base. In such cases, we content ourselves by describing the improvement in the collaboration process by hypothesizing that progress has been made in the way complex issues are handled, solutions found, and innovations discovered (see part 4, page 157).

Shared definition of problems

The questions that social groups ask of science are generally complex. For example: What are the risks of growing a GMO in open fields? What will be the impact of simplified agricultural techniques on the labor that will be replaced? Such questions call into play several factors whose dynamics are often unknown. Modeling the complexity of interactions (social, ecological, economic, etc.) and their dynamic nature to be able to make predictions remains an illusory dream.

The problem and its solution almost always depend on stakeholder perceptions. It is therefore necessary to try to define in advance the issue at hand, in as consensual a manner as possible, and then to work towards a satisfactory solution in a transparent manner with the stakeholders concerned.

Latour (2001) thus recognizes that all technical knowledge or object is a social construct resulting from an ongoing research process. Approaches called constructivist are mobilized to handle this



complexity; their scientific validity is now acknowledged and recognized. At the same time, several studies confirm that one learns best when working in a real-world situation. Only in such environments do stakeholder strategies emerge and it becomes possible to assess the feasibility of proposals (Breilh, 1997; Touraine, 1978).

Partnerships put researchers in contact with innovation as it happens

In diffusionist approaches, a new technique is invented in a research laboratory and then transferred to the concerned users. On the other hand, innovation, both technical and organizational, takes place on the ground, by the trial and error of practitioners trying to improve their practices or resolve problems. We thus distinguish between invention and innovation.

Invention is when something new is thought up by researchers in laboratories or on test plots or by farmers in their fields. Innovation is the implementation of a new combination of factors and is therefore already practice in action (Chauveau *et al.*, 1999).

Working in partnership puts researchers in situations where they can study innovation as it happens and even accompany invention within emerging groups themselves. In doing so, they are in the best position to detect and encourage the faintest signs of nascent technical or organizational innovations which could become more prominent in time.

In uncertain situations, the knowledge of the concerned stakeholders and scientific knowledge should both be mobilized via the establishment of partnerships. This will help make decisions for resolving real problems, in given contexts and whose character is never just technical but always includes economic and political dimensions. Resulting innovations are largely dependent on socio-economic and politico-institutional contexts in which they were (co)constructed, and which a linear, descendant, or diffusionist approach would not allow (Akrich *et al.*, 1988).

Research in partnership

A partnership can be thought of as a set of connections between stakeholders for combining resources around a project that has been



designed together for attaining shared goals (adapted from Lindeperg, 1999).

This broad definition covers various types of partnerships, in particular depending on:

- The categories of stakeholders involved: physical or legal persons, public or private institutions, producer organizations, businesses, associations, territorial communities, State administrations, etc.;
- The shared objectives, for example, value generation (economic partnership), knowledge and innovation production (research partnership), acquisition of capacity of action (operational partnership), or inequality reduction (social partnership);
- The type of links that are created between the stakeholders: more or less formalized, contractualized, cooperative, institutional, politicized, voluntary, opportunistic, etc.;
- The shared resources, such as workforce, skills, knowledge, position in a social network, equipment, money;
- The mode of co-construction, for example, each stakeholder's place in the decision-making process (consultation, cooperation, co-decision, etc.), phase and type of the project concerned, methods to manage tensions and conflicts, or others.

The partnership therefore encompasses several realities. An ARP takes place when the following conditions are satisfied:

- It takes place between professional researchers and concerned actors or stakeholders and takes into consideration the knowledge of the citizens, of practitioners, or of users, their ability to generate knowledge, and the specific character of the researcher's profession;
- Its objectives are to act on the real world and produce together basic or applied knowledge in complex situations;
- It leads to relationships where stakeholders in different social and hierarchical institutional positions participate in the decision-making process thus becoming the authors of the action research, and not a relationship where stakeholders are just invited into a process decided upon without their participation (see Chapter 3, "Fundamental principles of an action-research partnership approach," page 41).

Amongst the many agricultural research approaches, the ARP is the one that lays emphasis on the willingness of researchers and other stakeholders to work together, to debate and negotiate common objectives, and to define an equitable framework for the relationships between all participants. It is therefore distinct from participatory research where farmers and other stakeholders are invited to "participate" in research



designed by others, without having any real power to influence choices and decisions, and where the diversity of viewpoints and interests is often underestimated (Lavigne Delville *et al.*, 2000).

Summary

The ARP approach is therefore part of a vast movement that is redrawing the relationships that researchers and other actors have with knowledge, power, and action. It calls into question the double delegation (Callon *et al.*, 2001) by which citizens, practitioners, and users delegate choices on issues that concern them to politicians on the one hand (via elections) and to experts (including researchers) on the other. Using some strong postulates, ARP recognizes and incorporates non-scientific knowledge, stimulates dialog between researchers and non-researchers on the same topics, and helps build the capacities of participants, researchers, and other stakeholders.

Knowledge is not always found where we expect it to be. Thus, “popular” or “local knowledge,” technical knowledge, and institutional knowledge (found within organizations or produced via networks) are all diverse, rich, and dynamic. It is no longer the question of simple practices evolving as and when techniques and knowledge inspired from science are assimilated.

Innovation is a process where invention and its implementation are primarily the responsibility of the stakeholders concerned, who mobilize scientific and technical information in different ways (Bonneuil, 2004).

Researchers can no longer claim a monopoly of objectivity and knowledge. They cooperate with the other stakeholders in organized approaches for comparing analyses and for jointly creating new knowledge. Defining an issue (or constructing a problem-set) for all the stakeholders is therefore an essential step in the ARP approach.

ARP is thus an instrument to build stakeholders’ individual and collective capacities. It allows them to adapt better to changing conditions, thanks to knowledge that they have learnt to mobilize and generate, to the new legitimacy that is conferred on them by participating in the research, and to the lessons learnt and experience gained in making decisions in complex situations.

By no means does this imply that all other forms of research are henceforth rendered futile or stand discredited. For specifically identified



themes, the conventional thematic agricultural research is irreplaceable for its essential contributions. The dissemination of research findings, even indirectly, can help widen the frame of reference in which the stakeholders perceive their situation, analyze the problems that confront them, and experiment with solutions.

Similarly, research concerns can be legitimate even without responding directly to an identified societal need. But because it starts with a negotiation of the research and its goals, ARP is *a priori* a more suitable response to stakeholder needs and has therefore a greater effectiveness.



3. Fundamental principles of an action-research partnership approach

P. Gasselin and P. Lavigne Delville

Action research in partnership (ARP) proposes a specific way of linking researchers to action via the mobilization of a group of stakeholders, researchers, and other actors. This linkage is based on the four criteria (Liu, 1992) mentioned in Chapter 1, “Action research in partnership:”

- A combination of a research intent (researchers) and a will to change (non-researchers);
- A dual objective of resolving users’ problems and of advancing basic knowledge;
- A joint effort by researchers and other stakeholders;
- An ethical framework negotiated and accepted by all.

Six major principles stemming from these four criteria characterize the ARP approach. They are quickly outlined in this chapter before being explored in detail in the following ones. Major crises and possible derailments that can result during the implementation of an ARP are presented at the end of this chapter.

Incorporating research into action

As already pointed out in Chapter 1, “Action research: from its origins to the present” (page 23), real-world action is conducive to knowledge discovery and production. ARP involves itself with action by aiming for a balance between knowledge production, problem resolution, and learning. This approach creates a structure for the entire process and leads to the emergence of a collective actor who helps define the issue and the problem-set, controls and directs the activities, and evaluates and monitors the approach.

Producing contextualized knowledge

The aim of research is to produce rigorous knowledge which is generic to some extent. On the one hand, research is based on a dialog and



back-and-forth iterations between a theoretical framework and concepts considered relevant. This allows it to assess and describe complex realities. On the other hand, it relies on empirical analyses based on observations, experimentation, and surveys. This allows theories and concepts to be tested, and their scope and limitations to be determined, or even to be called into question.

To proceed, non-researchers not only require frameworks for analysis and general frames of reference, but also, and especially, precise knowledge concerning their environment and the processes at work in their own space.

The knowledge produced unites these two requirements. To be usable and useful to the stakeholders, it has to be local, contextualized, and has to be predominantly specific in nature. It frequently goes beyond the frontiers and categories of scientific disciplines to explain fully the multi-dimensional, complex processes.

However, it should also allow researchers to enrich general knowledge by extricating themselves from the specifics and particular contexts, and hence by going beyond the local and the empirical. The knowledge should thus gain a generic aspect and the researchers should be able to propose analyses with a wider validity.

Building together

ARP assumes that involved stakeholders (individuals and organizations) will participate throughout the whole research process (Darré, 1997): defining the general problem, formulating goals and research topics, undertaking the action research, reflecting and assessing the results. It is different from other research processes in which collaboration between researchers and other stakeholders is restricted to just one or more research stages with ARP that the concept of partnership finds its full expression.

All the participants are not only “stakeholders” but also “co-authors” of the process, its results, and its evaluation (Albaladejo and Casabianca, 1997). Chapter 6, “Enrolling stakeholders and the role of researchers” (page 79), examines the conditions propitious to the emergence of this collective.

The various partnership modalities (see Chapter 2, “Why undertake action research in partnership?” on page 31) refer to corresponding forms of participation in conducting an ARP. In a true partnership, it



is assumed that the different actors will share in the decision-making process. Similarly, it is assumed that risks, responsibilities, benefits, and access to resources will also be divided amongst the partners.

In such a scenario, the degree of involvement in the various stages often depends on the specific interest that the stakeholders have at a particular stage, the skills they can call upon, and other aspects.

Stakeholder participation in an ARP includes levels of involvement that can be very different. They are, in increasing degrees of involvement:

- Consultation using surveys and polls;
- Exchange of viewpoints;
- Building of a common vision (requiring a change in one's initial analysis);
- Distribution of activities amongst project partners;
- Sharing of responsibilities;
- Shared decision making, both for activities and their funding;
- Taking of initiatives (representing a real desire to be involved).

An ARP requires an equitable dialog between all stakeholders. However, a participant will not speak up or take responsibility as a planner of the ARP unless he or she finds some interest, has necessary resources and skills, and sufficient confidence in himself and his interlocutors.

Yet the different stakeholders are rarely on an equal footing at the launch of the process. Their ability to grasp the context, independently formulate a demand, or participate in negotiations are not the same (Albaladejo and Casabianca, 1995).

An ARP brings together categories of stakeholders with diverse interests and at various social and institutional positions. It operates in a social context which is always complex, with dynamic relationships of power, exclusion, and cooperation. Sometimes conflicts can even be openly perceived (Chauveau and Lavigne Delville, 1998). Asymmetries between the stakeholders frequently prevent an open dialog and often skew the cooperation (see Chapter 7, "Introducing action research in partnership rooted: the Unai project in Brazil," page 97). Such is often the case, for example, in the asymmetries in technician-farmer relationships, caused primarily by an unequal mastery of the discourse.

These situations call for specific procedures (Barthélémy *et al.*, 2007), covered in greater detail in Chapter 8, "Governance mechanisms," page 107, for constructing an environment in which power is more or



less in balance. Skills required to manage disparities and conflicts are indispensable for a real partnership. This is probably the most difficult aspect of managing an ARP.

Recognizing others' knowledge and developing a common language

The dialog between stakeholders requires the recognition of the validity and legitimacy of different knowledge types, irrespective of their origin or classification: profane, technical, scientific, institutional, etc. *A priori*, there is no hierarchical or dependent relationship between them. Stakeholder knowledge is no longer just an object for researchers to analyze but fuels the discussions and has relevance in arguments between different stakeholders and between stakeholders and researchers. Stakeholders contribute thus to the production of new knowledge, to the transformation of reality, and to learning processes. Specific procedures need to be called upon to promote this “dialog of knowledge” (see Chapter 9, “Operational mechanisms, methods, and tools,” page 121).

Yet, at the beginning, each participant speaks a different language. The methods of reading reality, of defining issues, are different (Castellanet and Jordan, 2002). Adopting a common language thus seems to be essential for stakeholders to be able to reflect and act together. They will be able to build a common culture, their own collective identity, share a certain “real-world view,” and be on the same page during their discussions.

Researchers and technicians in particular need to address these concerns. They have to make an effort to understand their interlocutors' thought processes and preoccupations. By avoiding unnecessarily complicated terms and terminology, they can render their own ideas and their concepts accessible to other stakeholders. Finally, they have to widen their interest beyond that of their own discipline. Building together a common representation of the complex situation that is the object of an ARP is a good way of favoring the emergence of a common language. Other practices, presented in Chapter 6, “Enrolling stakeholders and the role of researchers” (page 79), facilitate the dialog.



Adopting a framework of shared values

Because science and society are always interconnected, choices have to be made when implementing an ARP. Values and ethical principles have to be expressed plainly and each participant has to assume his or her social responsibility. Each partner has to share openly his or her cultural frames of reference, including those related to religion if deemed relevant, so that they can be combined and incorporated into a framework of shared values. This presupposes a collective understanding of the way different stakeholders perceive the world.

The framework will specify, for example:

- The values, attitudes, and behaviors that are allowed or forbidden within the ARP collective;
- The design of the collective's democratic mechanisms and their limits;
- The importance accorded to building the individual and collective capacities of those in marginalized groups (empowerment or autonomization);
- The minimum societal model which stakeholders adhere and aspire to (for example, the development of autonomous family farming contributing to the country's food security and sovereignty).

Even when the partnership has been formed mainly for technical reasons, the way adopted to structure participation into an ARP has a political dimension. Only when this framework of values is openly discussed can one hope to find answers to questions such as: How to ensure the relevance of the "choice" of participating groups, in terms of knowledge creation and societal change objectives? How to discern and analyze the roles, interests, and strategies of the various stakeholders when we cannot, or do not want to, undertake long sociological studies? Should the researcher hold back and let social differentiations be mirrored in the partnership? How should the facilitator tone down his or her own ideological positions? Can we organize an ARP with groups in conflict with each other? If yes, how? How to extend the benefits of an ARP to groups with little or no involvement in the approach?

Conducting an iterative process, based on reflexive analysis

An ARP cannot be preprogrammed: its first iterations often lead to changes in the initial framework or in the way the problem is



posed (Lavigne Delville *et al.*, 2004). They raise new concerns to be addressed, which may necessitate new research or new experiments.

It is a matter therefore of an iterative process, whereby different research and action phases allow systematic testing of hypotheses, concepts, methods, and interpretations arrived at in earlier cycles, and consequently to refine or redefine them. Results of one stage contribute to fine-tune questions and help specify the contents of the next phase, its hypotheses, and modalities of action.

To this end, the different stakeholders should regularly analyze the process in progress. This reflexive analysis, conducted separately and together, is a constituent element of the approach. It invariably helps refine the problem-set and hypotheses, and contributes to changes (in postures, in social relationships). It also aids in steering the ARP process and evaluating it. Reflexive analysis helps assess the knowledge generated, lessons learnt, and the transformations of reality. Methods and tools to conduct such a reflexive analysis are presented in Part 4 (page 157).

The six principles are given concrete expression in an exacting approach which tries to find a balance between the various tensions presented in Box 1.

Box 1. Tensions in an action-research partnership and risks of derailment

N.E. Sellamna

The main tensions and possible causes of derailment of an action research in partnership (ARP) are:

Tension between two forms of instrumentalization. In the first form, everyone acts legitimately with one or more stakeholders using the partnership to mobilize skills and associated resources to study and resolve a given problem. The second, potentially destructive, consists of using the partners as pretexts to promote one's own projects, access funding, and pursue one's own political agenda.

Tension between relationships that are too individual and those that are too institutional. A partnership between individuals is easy to establish but has very limited possibilities to stimulate subsequent social change since it becomes necessary to mobilize organizations and institutions to do so. However, a partnership between institutions has "political" implications, going beyond the individuals involved. This raises the question of the co-existence of the freedom necessary to researchers and individuals engaged in an ARP and the specific institutional compulsions of the participating organizations.

...



...
Tension between two strategies, one whose objective is to obtain research findings and the other whose objective it is to obtain results for development. This strain is permanent and structural. It can be a source of conflict between the contrary expectations and priorities of the partners, especially so when they have very different profiles (mandates, cultural background, level of resources, planning time scales, etc.). The fear is that one strategy may overshadow another.

Tension between empiricism and conceptualization (see “Producing contextualized knowledge” on page 41). An action research starts with a problem confronting stakeholders, who do not have much regard for theories. And yet, for an issue originating in the field, participants should be particularly concerned about the concepts used. Research is not possible without concepts; they are a key to understanding situations and a basis for reflection. Concepts not only provide an interpretative lens on reality but also define the power relationships between the partners; those who master the concepts, master also the research.

Tension between engagement and detachment, the risk of paternalistic and fusionist approaches. “Engaged” professional researchers have both attitudes to a greater or lesser (latent) extent. Paternalism is, at its core, an expression of a power relationship which maintains, consciously or unconsciously, the partners in a dependent relationship under the guise of a comprehensive one. A fusionist attitude, on the other hand, deprives action research of the detachment required for the research and of the clash of viewpoints which lends richness to the partnership and can be its source of innovation.

Tension arising from the treatment of non-researcher partners as subjects or objects of the research. Unfortunately, acknowledging and respecting the identities of all partners is not a given. Professional researchers, in particular, often tend to consider the others as research subjects or research objects. In the first case, the researchers can have unrealistic expectations of their partners. In the second, the researchers treat their partners as one more element in their research and, thereby, lose sight of the latter’s potential contributions to finding solutions.



4. Important moments in an action-research partnership

G. Faure

How does an action research in partnership (ARP) begin? How do the stakeholders initiate and evaluate activities? When does the action research conclude? This chapter provides some essential answers to these questions.

Temporal aspects

■ Phases, cycles, and stages

Just like other approaches, an ARP proceeds in different stages. Broadly speaking, it starts by the analysis of an existing situation, goes onto a stage dominated by action, and concludes by an evaluation of results. Moreover, it is generally a cyclic and iterative process (see “Conducting an iterative process, based on reflexive analysis,” page 45). This process is very similar to the one described traditionally for management processes: analyze, plan, act, monitor, and evaluate.

The relative importance to attach to the “action” aspect and the “research” aspect divides ARP practitioners and thinkers (see Box 1, “Tensions in an action-research partnership and risks of derailment,” page 46). This explains the different emphasis accorded by each stakeholder to the creation of knowledge, the resolution of the problem, and the strengthening of their skills and knowhow to allow them to become more autonomous and self-sufficient. Ultimately, these different perceptions have an impact on the different stages of ARP (Box 2).

In any case, two stages seem to be especially sensitive: the start and the end of the activities. At the start, it is necessary to clarify the expectations of the researchers and the other stakeholders, to verify whether the issue is suitable for action research – rather than just suited for classical research or expert intervention. In addition, it is necessary to ensure that the stakeholders share common values that will allow them to tackle the problem at hand and that they are ready to participate in a partnership where they will have to respect some common rules.



Box 2. Different ways of designing the stages of an action-research partnership's approach

Mc Kernan (1988) emphasizes the problem encountered by the stakeholders and describes these seven stages: (1) the definition of the problem, (2) the identification of the objectives, (3), formulation of ideas and hypotheses, (4) drawing up of an action plan, (5) implementation of the action plan, (6) evaluation of the action, and (7) taking decisions based on the results obtained.

Liu (1992) insists on the process of creating knowledge that will be useful for action and identifies five stages: (1) formulation of research issues taking modalities of action into consideration, (2) drafting of hypotheses for implementing solutions, (3) implementation of solutions including memorization and archiving of activities, (4) diagnosis of the final situation and evaluation of results, and (5) drawing up of conclusions relating to the hypotheses with the formulation of research findings in a communicable form.

For its part, the conclusion of an ARP should be prepared beforehand, as stakeholders can always claim that their expectations have not been met, thus justifying the start of yet another cycle. In other situations, established collaborations can lead to unfavorable relationships of dependence justifying the continued presence of researchers as indispensable.

In this book, a division in three phases will be used, as shown in Figure 2:

- The launch or exploratory phase;
- The problem resolution phase, with several cycles divided into different stages;
- The concluding phase with activities coming to a stop.
-

It is worth noting that the usual sequence of these cycles and stages is liable to be disrupted by specific events such as the introduction or withdrawal of a stakeholder, an uncontrolled conflict, or a change in the rules of how the ARP is functioning.

Duration

The duration of an ARP can vary widely. In some situations, the ARP continues for several years with greater or smaller intervals between two stages of the same cycle or between two cycles, especially when the problem at hand is complex.

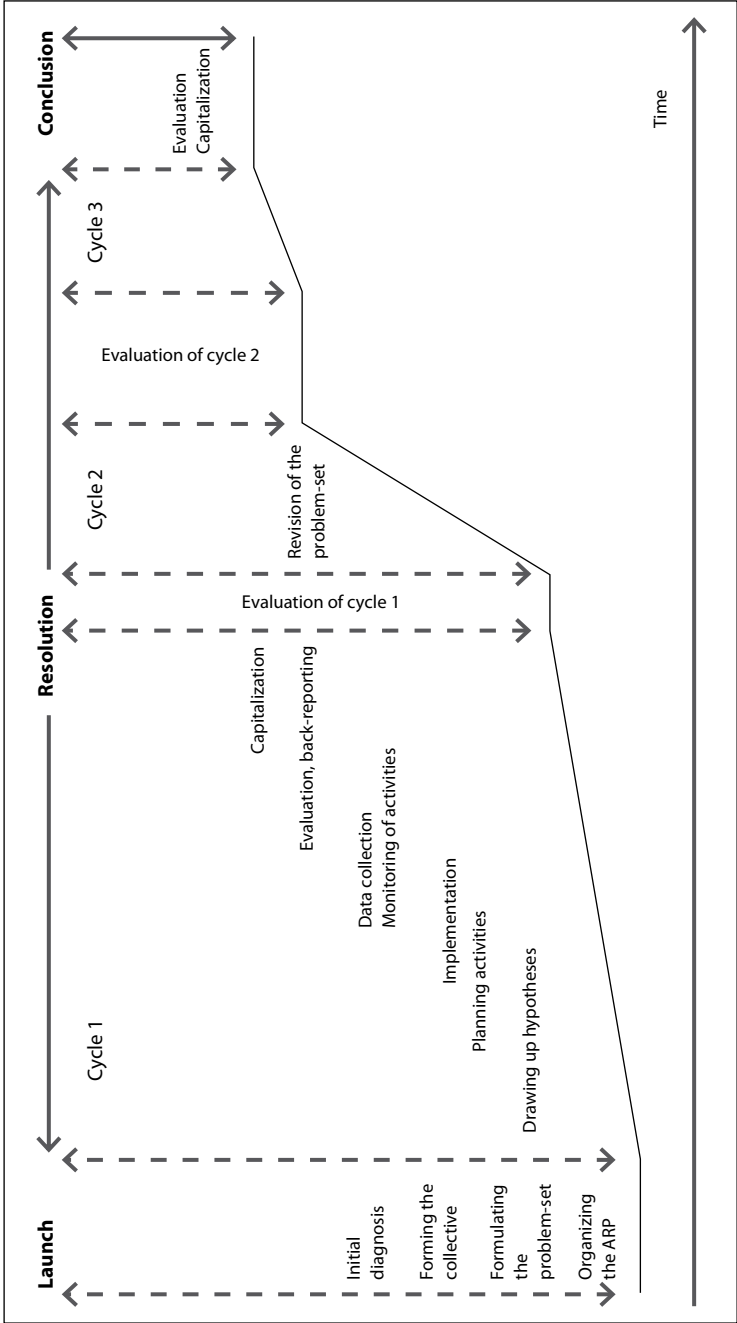


Figure 2. Evolution of an action research in partnership with its phases, cycles, and stages.



An ARP can sometimes be completed within a few months. This is only possible in situations with relatively simple problems or if the launch phase is part of other activities and is based on an initial diagnosis already completed and on a collective of stakeholders who already know each other. In fact, going from an expression of stakeholder concerns to an analysis and a shared definition of the problem always requires time.

The launch phase

■ Specifying the context using a participatory diagnosis

An initial diagnosis is often necessary – and not only for researchers – to collect enough information to assess the situation before embarking on any action. From a systemic and multi-disciplinary perspective, this will traditionally concern aspects as diverse as biophysical conditions of agricultural activity, diversity of farms, functioning of sectors and supply chains, the organization of space, and the socio-economic environment. It will also include consideration of individual or collective actor strategies, i.e., the resources they use to attain their goals, by a detailed look at stakeholder alliances and existing or potential conflicts.

There are several methods to conduct a diagnosis (see Box 3). If necessary, the diagnosis can be partially conducted in an external manner,

Box 3. Diagnostic tools

Several methods exist for conducting a diagnosis:

- The study of documents such as reports, articles, maps, write-ups, and work plans produced by research centers, producer organizations, development agencies, businesses, etc.;
- Conducting surveys (monographs and statistical surveys), for example, to describe stakeholder practices, specify technical and economic performance, understand the structuring of space;
- Conducting interviews, for example, with an open, semi-open, or closed questionnaire or with focus-group techniques, to be able to understand stakeholder strategies, analyze the discourse, and by comparing other interpretations;
- Collective analysis of the situation with the stakeholders to arrive at a shared diagnosis, by the use of workshops mobilizing the knowledge of the participants, of rapid participatory diagnostic modalities (such as rapid rural appraisals), whose methods have been refined in development-research programs, or by organizing specific events such as study tours or field trips to delve deeper into the subject.



using surveys and polls, but it should, above all, include the participation of the stakeholders involved. What is important to highlight is the way the stakeholders perceive their situation.

The tendency to indefinitely stretch out the diagnosis and thus delay the definition of priority work themes remains a constant risk and stakeholders of development-research programs often fall prey to it. In an ARP, researchers have to accept the idea that the initial diagnosis could be incomplete or partial, but that there will be many opportunities to revise and improve it later.

|| Building a collective actor

All the stakeholders identified during the initial diagnosis may not want to participate in an ARP if their participation is, for example, not necessary with respect to the problem at hand, not realistic in terms of resources required, or not desirable due to existing conflicts or pronounced asymmetries. An effort is thus necessary to identify key stakeholders and potential partners to help create a working collective that can attain the goals decided upon.

Verspieren (1997) goes further and refers to the creation of a collective actor. The initial proponents of an ARP, whether they be from research organizations or from other organizations, usually have atypical positions or profiles in their parent institutions. Their role at this initial stage is to convince and win over those stakeholders whose participation is essential to the process and others who will be able to defend or protect the project without necessarily directly participating in it (see Part 5, page 181). Indeed, an ARP process is delicate and many forces can oppose it, especially in its early stages.

This working collective can be structured in different ways: the constitution of homogeneous working groups (by stakeholder category) or mixed working groups, establishment of steering committees, or by the definition of a communication strategy. These points will be covered in detail in Chapter 6, “Enrolling stakeholders and the place of researchers” (page 79).

|| Drawing up a problem-set

At the start, stakeholders have concerns that they normally express in such statements: “With our production costs, we cannot make profits on our sales” or “Increasing the area under cultivation reduces areas for animal grazing and thus negatively impacts animal husbandry.” However, they gradually draw up a more accurate problem-set and



arrive at a collective reasoning through exchanges and discussions that highlight cause-and-effect relationships.

But what is more important is that the stakeholders are led to formulate questions that project them into the future. These questions are expressed in the form of strategies to implement: “How to reduce our production costs and identify more remunerative markets?” Unlike their initial concerns, such questions can be dealt with effectively and thus they are useful. They allow solutions to be developed which are within the stakeholders’ reach and which do not depend only on external actors or factors (as was the case for input costs and population growth).

This work of building a common vision, establishing a common language, and identifying questions that can be dealt with is a precondition to embarking on the resolution phase. Several exchanges may be necessary to achieve this. At the end of this phase, the problem-set may still be a little vague and ambiguous. It is in the following stages that it will be fleshed out, even shifted progressively to other domains the stakeholders may think more relevant.

These three aspects – drawing up a diagnosis, building a collective actor, and drawing up a problem-set – are strongly interactive, as shown in Figure 3, and are therefore conducted in parallel in an ARP approach.

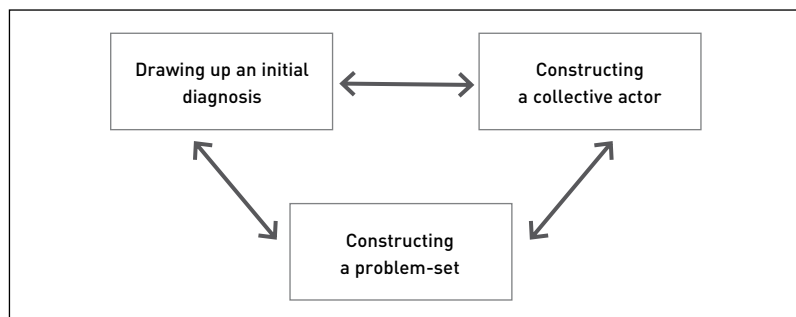


Figure 3. The launch or exploratory phase of an action research in partnership



▮ Should an action research in partnership process be launched?

At this stage, stakeholders can and should ask themselves whether an ARP is really suitable. They should do so by answering the following key questions (see Chapter 7, “Context and issues,” page 97):

- Do stakeholders share values and goals sufficient enough to proceed?
- Does the problem-set’s complexity require an ARP approach or can it be solved by implementing simpler approaches, for example, by mobilizing expertise, conventional research, or appropriate training?
- Does the collective really wish to produce new knowledge useful for the action?

Researchers who have participated in this phase can also verify if the problem at hand actually relates to their respective areas of expertise. If not, they can withdraw from the project, decide to hone and extend their skills, or try to rally with the nascent collective researchers with the requisite skills.

▮ Organizing action research in partnership

Intense negotiations between stakeholders bring to a close this launch phase. They focus on organizing the collective work to be done for clarifying the issues, identifying solutions, then following up on and evaluating the actions.

It is a matter of determining who decides what, who does what, when, where, or how.

The negotiations lead to a proposal for the functioning of the ARP that is acceptable to all. This proposal can include: goals to be attained, a general calendar including a schedule for meetings, rules for conducting meetings, creation of steering and/or arbitration authorities, agreements for accessing and disseminating information, and monitoring and evaluation mechanisms. The proposal for the ARP’s operation can also include a first budget that distributes costs by stakeholder and specifies the sponsorship of the have-nots, especially the producers. It is the right time also to reflect on the criteria that will determine the ARP’s conclusion (see Chapter 4, “The disengagement phase,” page 49) and thus to emphasize its temporary nature.

Together all these agreements and mechanisms form a “transitory organization” of the ARP, liable to be refined over time (for more details about the governance and management of the ARP see Chapter 6, “Enrolling stakeholders and the place of researchers,” page 79).



They can be written up in a document approved by all parties. In some situations, stakeholders can even formally state in writing their expectations and responsibilities. Sometimes a special event, such as an official workshop or ceremony, is arranged to symbolically mark the effective launch of the resolution phase.

The resolution phase

The resolution phase is certainly the longest phase, mainly because it consists of several sequential cycles. While the first cycle's initial stages can be confused with the reflection stages of the launch phase (Figure 2), the same cannot be said of the subsequent stages which address the identification of solutions, their implementation, and the evaluation of results.

▮ Producing hypotheses

Defining a problem-set leads to the drawing up of hypotheses. Hypotheses of actions to be undertaken can be generated which can serve to identify solution paths that are acceptable to the stakeholders, and those that are not. Research hypotheses can be generated that will serve to orient knowledge creation. Those referring to specialized scientific debates need not be shared with other stakeholders. Shared or not, it is nevertheless important that the hypotheses be fully compatible with the stakeholder collective's stated goals.

▮ Identifying realistic solutions

Once the problems and questions have been properly set, the following step, which aims at identifying solutions, can take place. On the basis of the common goals, one has to go progressively from what is desirable (the "dream") to what is possible, taking the local context into consideration, what is achievable, given the collective's constraints. Priorities are to be discussed; not all solutions have the same impact on the problem and not all have the same degree of urgency. It is a veritable art to understand correctly the room for maneuver that stakeholders have in planning their actions.

Very soon it becomes clear that the internal power relationships between members of the working collective are an integral part of the process. What's more, so are the external power relationships with other actors who want to influence the process and defend their own agenda and interests. It is therefore essential to identify opposition



and resistance to change, on the one hand, and factors and forces that enable them, on the other.

Thus, the steering mechanisms of an ARP (see Chapter 8, “Governance mechanisms,” page 107) always include a strategic dimension when positioning the ARP in the interplay of actors so that difficulties and oppositions that are raised can be overcome.

|| Planning the activities

To implement the identified solutions, i.e., to conduct an experimentation that has the goal and the potential to transform the lives of the stakeholders involved, the working collective should carefully plan its activities.

It is a matter of asking, for each activity, who does what, when, where, how, and using what resources.

If the stage for identifying implementable solutions and for defining priorities is properly conducted, the planning will be relatively easy. Each participant should be able to be heard and to take the initiative to help plan activities. To make this possible, special facilitation techniques may be used: round tables, small working groups, individual cards to note a participant’s input, etc.

After having drawn up a program of activities together, the facilitator can ask each participant to recap, in his or her own words and in front of the others, the tasks that he or she will be responsible for, thus making the commitment public. This also helps identify any difficulties the participants perceive so that they can be addressed.

At this stage, the question of funding the activities and the allocated tasks can lead to prolonged deliberations. If possible, this issue should be addressed in a fully transparent manner. Does everyone have the resources necessary to undertake the activity? Will the participation of everyone be free? For example, farmer representatives often expect that a system be established to compensate farmers for time spent in collective work to the detriment of their farms.

|| Carrying out experimentations and monitoring them

ARP activities can take various forms in different situations. For example, conducting specific surveys and studies to gain in-depth knowledge about a problem, conducting field experiments with farmers, establishing new ways of organizing farm work or managing a farmers’ organization, creating new tools for collecting and disseminating



information that will be useful to stakeholders, or working out new methods for cooperating with institutions to manage a resource.

Experimentation in an ARP is therefore both technical and organizational in nature. It does not necessarily require the researcher's presence; some experiments can be planned and carried out without his or her participation.

At this stage, it is important to distinguish between (1) activities centered on producing knowledge to strengthen collective reflection or improve decision-making capacities and (2) activities designed to transform the reality of stakeholders with greater or smaller degrees of irreversibility. The importance of one type of activity vis-à-vis the other depends to a large extent on the concerned ARP's cycle (Figure 2). The first cycle can emphasize knowledge production, with subsequent cycles focusing on activities designed to transform reality, or vice versa, depending on what seems important to the stakeholder collective for attaining the objectives agreed upon.

During this stage, the intensity of work can vary depending on the stakeholders, the work sites which can be clustered together or dispersed, and the frequency of contact between the working collective's members.

There are two determining elements (see Chapter 7, page 97, and Chapter 11, page 143, which cover ARP operationality in detail using examples from Brazil and Burkina Faso).

The first element is to set up a system to monitor activities. This helps analyze technical or organizational experiments and facilitates subsequent presentations of findings and results to the entire collective. In addition to monitoring the results of the experiments themselves (technical, economic, social), one also has to monitor the process generated by experimentation and this in its surroundings (behavior and reactions of the involved stakeholders).

The second element is the establishment of a communication strategy, both for serving inter-member needs and for communicating with the exterior. This helps maintain a sense of togetherness, builds trust, and eases mutual adjustments along the way. This strategy can include meetings, distribution of information notes, and joint visits to ARP sites.



■ Analyzing, evaluating, presenting, and capitalizing

The end of an ARP cycle is marked by analyzing the results of the activities undertaken by the collective of stakeholders (see Part 4, page 157). As per ARP principles, these are the activities that generate new knowledge on technical subjects, on the effectiveness of types of organization, or on stakeholder strategies.

This self-analysis or reflexive analysis (see Chapter 3, “Conducting an iterative process based on reflexive analysis,” page 41) often takes the form of sessions during which findings are reported back. These sessions help compare the results obtained with initial hypotheses and understand changes that took place during the cycle. While traditionally researchers are the ones to report back to the other stakeholders, it can also be done by the latter to the entire ARP collective, or even to actors who are not part of the collective.

The cycle’s end also includes another type of evaluation: that of the ARP process itself. The following questions are asked: Did the approach and methods used help meet stakeholder expectations? What are the new skills developed by members of the collective? What improvements can be made to future cycles?

In addition to self-analysis, it may be useful to plan an external evaluation. This can be commissioned by the institutions to which some ARP actors belong or by the funding entity.

And, finally, the researchers should capitalize the acquired knowledge by writing it up. Some of these documents will be destined for the stakeholders, others, such as scientific articles, for the research community. Depending on the particular case, this knowledge can relate to various aspects such as a close understanding of ground realities (for example, land management or supply-chain development), stakeholder strategies observed in action, technical subjects encountered during the ARP (such as an agricultural technique or a new way of organization), and the ARP approach itself as an innovation process. These written reports will also provide an opportunity to give a voice to stakeholders who otherwise have little say, and thus reflects one of the possible goals of an ARP, that of empowerment (see Chapter 1, “Criticisms and evolution of action research,” page 23).

■ Starting a new cycle

At this stage, the stakeholder collective can decide to start a new cycle to further pursue a specific question or because new questions have



emerged. If such is indeed the case, the problem-set is revisited, goals adjusted, and hypotheses reworked the cycle can begin on an updated basis.

The disengagement phase

It is important for researchers to know when to disengage themselves. This will avoid the collective becoming permanent and a substitute for the organizations concerned and prevent the activities from continuing indefinitely by becoming part of a mere routine. Such disengagement is not incompatible, however, with the fact that the ARP can lead to a new permanent organization which will provide sustainable solutions to the questions raised initially. Some authors refer to such a situation as “institutionalizing” action research.

In all cases, the disengagement can be sensitive and risky. It augurs well to discuss this phase at the very start of the ARP using clear objectives and a calendar drawn up *ex-ante*. This calendar will be subject to modifications during the process by the ARP governance authorities, either to change the date of the conclusion of activities or to introduce a new ARP cycle.

▮ When to end an action research in partnership?

An ARP concludes when its goals are attained. Thus the collective has to fix goals that can be achieved independent of the actions of other actors. This also implies that indicators which allow the results obtained to be characterized or quantified be used whenever possible (see Part 4, page 157), usually during a cycle’s evaluation.

An ARP also concludes when the collective actors become autonomous enough to no longer require the support provided to them during different interventions. They do so by acquiring knowhow and developing new skills during individual and collective learning processes initiated by the ARP.

Autonomy means that if the stakeholders find themselves in a similar situation, and encounter problems of the same type, they will be in a position to solve them without calling for outside help. However, it is difficult to characterize and evaluate how much they have learnt. This can be best estimated by gauging the perceptions the stakeholders themselves have of their new abilities.

Very often, a special, symbolic event marks the researchers’ disengagement. This helps convey the results of the ARP to a wider public



and allows acknowledgement and recognition of the efforts of each member of the collective. This event can take the form of a workshop, a ceremony, or a celebratory meal.

And, finally, a crisis may bring the ARP to an unexpected conclusion. Some stakeholders may feel that activities are no longer within the ambit of the framework negotiated during the launch phase. The researcher may feel that issues and experiments have gradually moved away from his or her area of expertise. Members of the collective may perceive the relationships within the collective to be too biased to allow them to present their point of view or to participate in the decision-making process. Some members of the collective may believe that the democratic values behind its founding are not being respected and that some members are manipulating the ARP to their own ends or towards goals not disclosed initially.

In such cases, the main objective is to negotiate a disengagement that creates the least amount of ripples, emphasizes the accomplishments resulting from the ARP, and does not endanger any possible future working relations between the stakeholders.

An unpredictable course

An ARP's course as described up to now seems relatively predictable and even somewhat reassuring. And, in fact, it seems to differ little from what usually happens during a conventional participatory research process: where, the researchers have firm control over the planning of tasks and the calendar of activities. But past experiences tell us (Hocdé *et al.*, 2008) that such a situation rarely prevails in the case of an ARP, especially when the problems are complex and the stakeholders involved many.

■ Difficulties of building together

The launch phase, however long, is not always successful in finding a common vision and shared goals between the stakeholders. Participants often find it hard to deviate from the usual “political correctness” or the good intentions expressed initially during the few collective workshops taking place in the launch phase.

Some stakeholders, in particular those from outside the area (and thus very often the researchers), lacking an intimate knowledge of the situation on the ground or of the stakeholders involved, can underestimate simmering tensions or overestimate capabilities. Moreover, the



parties that an ARP hopes to bring together (producers, researchers, or institutions) are sometimes so distant from each other that gaining a mutual understanding is very difficult.

It is generally only in action that the stakeholders' values and strategies surface and manifest themselves in the midst of the collective (see Chapter 2, "Main justifications," page 31). Tensions and the capabilities of the stakeholders for experimentation are revealed. Does this producer have the necessary material resources, time, or the social capital required to conduct an activity? Does that technician have the required room for maneuver or is he or she likely to put his or her institutional hierarchy in some difficulty? Can this researcher really mobilize the knowledge and knowhow necessary to help resolve the problem at hand? It is only in action that these questions become real. Their answers can call into question preconceived notions and initial predictions and projections.

▮▮ Changes experienced and crises

With the activities by collective members having such a revelatory role, it is not unheard of, in an ARP, for some stakeholders present at the launch phase to withdraw completely or reduce their involvement significantly, for others to assume a more prominent role, or even for new stakeholders to enter the collective. These dynamics change balances all around and can require a modification in the problem to be resolved and in the planning of activities.

It is important to evaluate these changes collectively, in particular in the ARP's steering mechanism, to understand their future implications for the collective. It is a matter of asking questions such as: Are the observed changes for the good and can they contribute to identifying more realistic or effective solutions? Or are they detrimental on the whole and risk diverting the collective to issues or solutions less acceptable by a part of the collective?

In addition, an ARP is subject to frequent crises. A crisis can be triggered by, for example, an inflexible position taken by a stakeholder provoking strong reactions, a conflict between two parties that originated in a different context but is now overflowing into the collective, or by a dramatic reduction in participation by some stakeholders, thus risking derailing the adopted approach.

These crises should not be considered as abnormal occurrences revealing an unsuitable choice of an intervention method. In fact, they

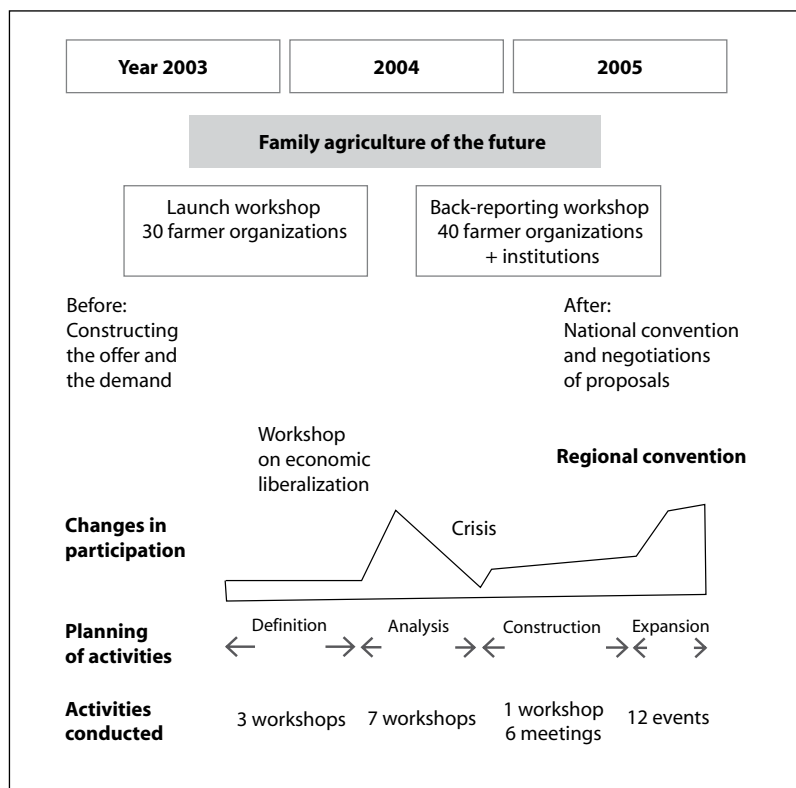


Figure 4. Chronology of constructing a proposal for farmer organizations in Costa Rica hit by a crisis. Source: Faure et al., 2007.

can even serve to reveal stakeholders' true positions or highlight problems not perceived during previous stages. That said, it is imperative to overcome a crisis as soon as possible otherwise it may trigger the eventual death of the ARP process.

Hence there is no point in denying the existence of crises or underestimating them. On the contrary, they should be anticipated as far as possible via strategic analysis of the stakeholders and, more importantly, mechanisms to manage them should be put in place. Various mechanisms can be used, for example, appropriate powers granted to the steering committees to change unsuitable rules and to take real-time decisions, nurturing of interpersonal contacts to quickly grasp the reasons behind a crisis, or meetings in small groups to help build consensus.



Figure 4 shows the course of an ARP conducted in Costa Rica with farmer organizations interested in planning their agricultural future. It clearly shows the growth in farmer participation during the course of the ARP process and, in particular, the role of a significant crisis. This crisis was overcome by modifying the methods of working and a recasting of the ARP's governance system.



Conclusion

The ARP is part of a family of approaches that aims at involving researchers and other stakeholders together in conducting research. In this book, ARP is defined as an action research that has the triple objective of producing new knowledge, resolving a problem confronting the stakeholders, and building the capacities of these stakeholders so that they can become more autonomous and self-sufficient.

An ARP is based on four principles: a combination of a will to change and a research intent, the dual objective of resolving a problem and advancing fundamental knowledge, a concerted effort of researchers and stakeholders on the ground, and an ethical framework negotiated and accepted by all.

If an ARP's proponents follow the principles enunciated in this part, they will fulfill the minimum conditions necessary for its eventual success. These principles are, however, not a recipe for a good ARP but only guidelines for developing a process and steering it successfully, avoiding some of the many potential potholes.

An ARP is action-oriented. On the one hand, it aims to transform the stakeholders' reality and, on the other, it produces knowledge about the process of change.

The knowledge produced is local and contextual and can thus be appropriated by the stakeholders.

The participation of stakeholders having an interest in the resolution of the problem becomes real. It improves the understanding of the problem and engages the stakeholders in the execution of subsequent activities.

An ARP requires everyone to recognize the knowledge of others and its potential to help resolve the problem.

A common language and shared values are necessary for building a collective of stakeholders from different backgrounds and for putting in place various strategies.

The entire process is based on reflection and the questioning of attitudes and practices. This helps participants develop skills and knowhow.

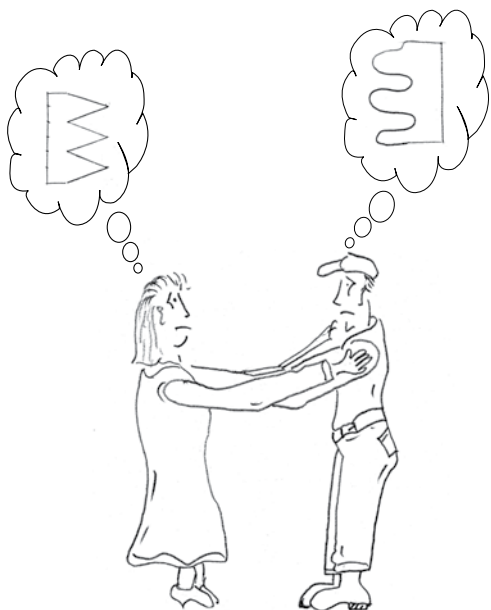
The process is iterative. It allows the systematic testing of concepts, methods, and interpretations arrived at during initial research cycles. They can then be refined and the process updated.

An ARP has three distinct phases: a launch phase, a phase for resolving the problem, and a disengagement phase signifying the conclusion of the ARP. Nevertheless, it is a flexible approach, and can be moulded to the requirements of local action. It involves diverse stakeholders in complex issues with a large number of parameters that change fast and sometimes chaotically. Consequently, an ARP's course is rarely smooth, with a succession of regular stages and cycles that can be easily planned. Indeed crises form an integral part of the process.



Part 2

First steps to an action research in partnership

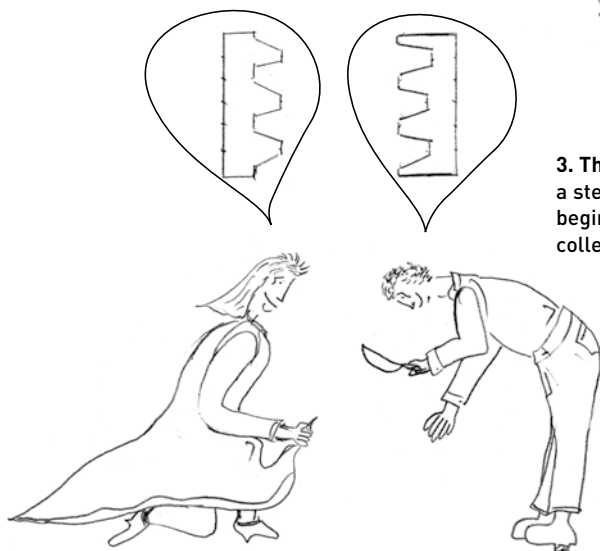


1. The launch phase: the construction of a common language and a shared vision of reality

2. The resolution phase: implementation of joint activities



3. The disengagement phase: a step to plan for from the very beginning of setting up the collective





5. Emergence of the collective

P. Pédelahore and C. Castellonet

This chapter covers in depth some topics touched on briefly in Part 1. In particular, it deals with the emergence of the ARP collective, a process that needs careful thought.

Contours of the initial collective

An ARP collective changes with time and with continued collaboration. Its initial composition and form deserve special reflection because they have a bearing on the formulation of the problem and can often lead the collective on a particular course which may not be easy to change further down the road.

Three factors influence the initial shape of the collective and they are discussed below: the type of initiators, the level of complexity of the initial problem, and the diversity of the stakeholders concerned.

■ Initiator(s)

An ARP collective starts taking shape by the initiative of one or more stakeholders, interested in a given issue and/or desiring change (see Chapter 3, “Fundamental principles of an action-research partnership approach,” page 41). For example, it can be a researcher or a research team that wants to partner with development actors. The initiative may also come from other stakeholders – individuals or organizations such as producer organizations, NGOs, local administrations, industries, associations, or territorial communities – who require the help of researchers to resolve a problem affecting their activities.

The initiative can be, for example, the result of a prior agreement between two organizations, or a research institution and a farmer organization. The initiative takers can also be individuals, acting more or less independently of their parent institutions.

The initial configuration often determines the collective’s functioning which itself depends on more or less formalized relationships between individuals or institutions.

■ Complexity of the initial problem and partnerships

The number of stakeholders required in the collective is often related to the complexity of the problem at hand.



In some cases, the ARP can be structured around a problem that is relatively isolated and clearly defined by the stakeholders concerned. Such a problem can usually be addressed within a predetermined, reasonable time in a framework involving minimal negotiations. For example, if a cocoa-producers' organization wishes to improve its techniques for the chemical protection of cocoa pods from brown rot disease, it could enter into collaboration with a phytopathologist to develop new treatment practices.

On the other hand, if this same organization wants to increase its annual sales of cocoa, it could associate itself not only with phytopathologists or production agronomists but also with economists specializing in marketing, perhaps even specialists in primary harvest and crop storage. Apart from the researchers, it may be worthwhile to include other actors in the cocoa supply chain in the ARP's collective, such as transporters and exporters, with the aim of designing and testing a realistic and practical plan development.

▮ Expanding the collective: willingness and possibilities

In some situations, the partnership is dominated by the relationship between researchers and farmers or between researchers and a farmers' organization. In others, the process of building a collective can be more open and, thus, there may be many more partners interacting on the same problem.

In the example of treating cocoa against brown rot disease, the first situation leads to a conventional collective which brings together phytopathologists and cocoa farmers. In the second, the collective will also include the local agent of the Agricultural Ministry's phytosanitary team, the representative of the chemicals firm that distributes fungicidal products, and the manager of a "green" project for obtaining cocoa with "low levels of chemical residues" and for setting up a supply chain for such cocoa.

The capabilities of some stakeholders to emerge and to be taken into account are additional factors that determine the number of partners in an ARP, as we will show in Chapter 7, "Introducing action research rooted in partnership: the Unai project in Brazil" (page 97).



Criteria for selecting members of the collective

Stakeholders of an ARP process do not all have the same level of involvement in the approach. We can distinguish between:

- A “hard core” of partners very involved in the discussion on goals, establishment of set-ups, and planning and evaluation of activities;
- More peripheral stakeholders who participate in some planned activities (producers limiting their participation to conducting agro-nomic tests on their fields, for example);
- Service providers who intervene on demand, often against payment, for conducting some limited activity (conducting of surveys by student interns or mobilization of an expert, for example);
- Individuals or institutions having a significant political or strategic role without being directly connected with the ARP (the governor of the province or the representative of a ministry under whose ambit the project falls, for example).

In the face of such diversity, it is useful to specify the criteria for characterizing various types of ARP stakeholders. These criteria help judge each participant’s appropriateness and potential contribution, as well as his or her possible position and weight within the collective.

▮ Representativeness

Researchers, when they are the ARP initiators and, in particular, when they intervene in poorly structured rural socio-professional contexts, tend to choose their partners and work locations based on their own technical, biophysical, and socio-economic perception of the diversity of conditions and people. In doing so, they hope that they will be able to extrapolate the results obtained to the entire target zone or at least to situations with similar characteristics.

While such an approach meets the legitimate requirement of defining the domain of recommendation of the results obtained, the choices made (of sites, of stakeholders) may not be relevant with respect to the need for building a collective problem-set or conducting activities. Nor does it ensure that the stakeholders thus associated with the ARP will be truly motivated.

To overcome this difficulty, researchers can take another approach to building an ARP collective. They base their choices and criteria not on the representativeness as such, but on taking into consideration the



local dynamics, existing stakeholder networks, and the concerns of the corresponding stakeholders.

With non-researchers as the ARP initiators, one could assume that the choice of participants will be sure to be relevant and that the group will be more committed to any collective action. But even in these cases, stakeholders of an ARP should collectively examine the real representativeness of the initiators as far as issues and local structures are concerned: Does this specific small group of farmers truly have the same concerns as all the farmers in the area or does it only represent itself? Is this elected municipal official really expressing the problems of his community and the way the community expects them to be handled or is he merely pushing his own perception of the situation and his own ideas for solving the problem? Is the producers' representative really speaking on behalf of his association or does his position only express his personal viewpoint?

▮ Legitimacy

Partners of the collective have to go beyond the representativeness criterion to also question the participants' legitimacy. Legitimacy can refer to two distinct concepts. First of all, it can be understood as the recognition of a stakeholder by his or her peers, by other collectives he or she is a member of, or by an institution he or she represents (producers' representative, elected official, a person respected in his or her network). This type of legitimacy is usually limited to a specific technical, social, institutional, or other domain.

The type of questions that need to be then asked are: Will the commitments made by this representative of an association of large grain wholesalers be truly respected by all his organization's members or do they only bind him? Are there mechanisms for discussing and validating positions taken by the representative within his organization, and for ensuring that the approved position will be respected by the other members?

Secondly, legitimacy can refer to a wider political dimension. The ARP collective could consider legitimate the inclusion of women's representatives or those of small farmers or ethnic minorities to help empower historically marginalized groups.

▮ Skills

Skills and knowhow can also be part of the criteria for selecting members of the collective. Thus, an agronomist working on managing soil



fertility, much like a local community working towards establishing systems for sustainable production, will hope to include pedologists or producers with knowledge in composting techniques in the collective he is forging.

Similarly, a potato farmers association wishing to improve the quality of its produce will hope to include partners who are knowledgeable about the causes of deterioration of quality along the supply chain and capable of defining indicators about such deterioration and of recommending actions to take to prevent or reduce it: harvesters, transporters, wholesalers, retailers, consumer organizations, and supply-chain economists.

Other skills can also be considered, such as the capacity to lead a collective or to play the role of interface or intermediary between the different types of actors involved (see Chapter 7, “Introducing action research rooted in partnership: the Unai project in Brazil,” page 97).

The individual or collective nature of skills and knowhow to be mobilized also needs to be examined. Is collaboration with competent, motivated, and locally established individuals, but who could be isolated, preferable to one with institutions who have the power to mobilize their members and who could convince other potential institutional partners to follow suit, but who could be deeply involved in institutional power games and politics? It is best to be pragmatic and to take case-by-case decisions without prejudging the possibilities and advantages of working with individuals on the one hand or institutions on the other.

History of relations between participants

To these criteria of representativeness, legitimacy, and skills of potential participants, we can add other less obvious aspects that may influence the selection of partners and the functioning of the future collective.

A prior relationship between stakeholders at the time of launching an ARP is one such aspect. A researcher already involved with a producer organization or a territorial community already being supported by an NGO are liable to let their trust and working connections with existing partners influence their ARP partnership choices, without explicitly considering the legitimacy, skill, or representativeness criteria.



No doubt, an existing connection facilitates dialog and team work, but it can also encourage a routine and be detrimental to the collective's ability to change and to open itself up to other partners.

▮ Relationships of power and influence

It is important, as we mentioned already, to understand the actual power games, lobbying efforts, and public displays of and by the various stakeholders (see Chapter 4, "An unpredictable course," page 49). Stakeholders who find out about an ARP project and then proclaim themselves as essential or important to it are not always the most competent or legitimate.

And yet, excluding them may be impossible due to their sociopolitical position or influence. In addition, political or institutional interplay at the national level may work against local dynamics and could affect the composition of the collective or even the issues to address. One way of dealing with this thorny issue is to discuss the choices to be made very openly within the collective.

▮ Differing motivations

Detecting stakeholder motivations and justifications is also important. The motivations explicitly expressed by the partners very often relate to the collective good. For example, the researcher wants to resolve an issue for the benefit of all participants. The representative of a producer group or of local government wants to help improve the quality of life of its members or fellow-citizens, respectively.

However, this may not be enough: unstated motivations are also essential aspects of a partner's involvement. Ostensibly, a representative of a producer organization may want to participate in an ARP approach as a person capable of establishing ties with public institutions, but his real motivation may be that such a collaboration would benefit his organization. Similarly, a researcher wanting to conduct his own research on a topic unrelated to local requirements could express his willingness to help resolve the problem confronting his farmer partners so as to be accepted and welcomed in a given rural setting (see Chapter 7, "Introducing action research rooted in partnership: the Unai project in Brazil," page 97).

Such situations of reciprocal instrumentalization by different stakeholders are fairly common (see Box 1, "Tensions in an action-research partnership and risks of derailment," page 46). Detecting them and taking them into consideration for analyzing their positioning is



important, even if it takes time to do so. Note that true motivation is only revealed “in action” when stakeholders actually participate in ARP activities (see Chapter 4, “An unpredictable course,” page 49).

▮ Taking the plunge

This first phase of identifying partners and building the initial collective is essential because on it will depend in part the dynamics of the ARP to come. Future failures of the ARP may be avoided if sufficient care is taken during this phase.

Nevertheless, a collective is built by negotiation and is based on interests and strategies of all parties. It is never going to be perfect. Do not wait indefinitely for an “ideal” collective to form before initiating exchanges or starting more concrete work. Its relevance and operational suitability can only be revealed by action and effective collaboration.

The collective’s first steps

The launch phase, in particular the discussion on the problem to be addressed, is an essential stage for building a sense of collective action. It influences group cohesion and the level of involvement of the partners. It is a progressive and iterative process, sometimes time-consuming, conducted simultaneously with the building of a common language (see below).

▮ Taking the time to know each other

ARP approaches normally bring together individual or institutional stakeholders with different functions, cultural backgrounds, and language styles. In some rural environments with low levels of literacy or weak institutional structures, putting together a functional collective may take as long as six months, even a year.

In fact, ARP goals and approaches, especially when proposed by researchers, are not easily understood by rural producers and organizations used to the normal top-down and prescriptive functioning of research or extension institutions. In addition, since researchers are normally used to less interactive ways of working with stakeholders, these approaches require them also to change their way of thinking and their methods of working.

The first stages on the ground are therefore of progressive discovery, both of the approach and of each other. It is often found necessary to



stop talking and move on to more concrete activities so that members of the collective experience first hand the implications and practical results of this type of approach.

|| Listening to each other and building a common language

Building a common language and establishing some degree of trust is therefore almost always an indispensable first step. It helps lay the groundwork for a constructive dialog. To prevent misunderstandings, all participants must first identify and share common concepts which are going to be used in the ARP approach. In addition, certain common ethical values have to be shared by the partners. Or, at the very least, each partner should sufficiently be aware of the values of other partners so that he is in a position to detect and understand varied interpretations that one partner or another may bring to certain statements.

Hence the importance of the ability to listen sensitively and of the constant effort to place oneself in the others' shoes with an understanding attitude (Barbier, 1996). Each stakeholder strives to express his or her ideas and proposals in terms that can be understood by all participants, to pay genuine attention to others' projects and viewpoints, and to recognize their abilities and knowledge.

If certain stakeholders are too far apart culturally or if the language barrier is especially high, it may be necessary to plan for and allot time to bidirectional translations. Some stakeholders are always best at ease in their mother tongues. This translation can lead to the reformulation of statements by a third party (a facilitator) or to the creation of words capturing new concepts.

Translation, though, can have its own difficulties. For example, how to translate "cash" in Dioula or "farm enterprise" in Fulfulde? What significance to assign to the concept of gross profit per hectare when the farmers think instead in terms of production and cash?

Terms as common as "crop yield" may mean different things to different stakeholders. The agronomist measures the yield of a crop in kilos per hectare whereas the farmer may think of it in terms of kilos of crop harvested per kilo of seeds used or the number of tubers obtained by size category.

Some farmers understand the concept of democratic collective decision making as the decisions taken by the elders and community



seniors, rather than one requiring the consent of all social groups, including the marginal, in the community.

▮ Facilitating dialog

In addition to these aspects of communication, the building of trust and mutual understanding is achieved by simple actions, choices, and gestures which indicate one's reaction to the other's habits and behavior or which indicate a desire to share or to collaborate closely. Very often, these acts and deeds say more and are better understood than words.

Thus, for example, in a situation where a researcher is initiating an ARP approach, visiting the fields with the farmer with whom he or she wants to work, offering and sharing a meal, or respecting the moment of prayer that, in certain cultures, starts off a meeting, are all significant gestures.

Similarly, a meeting in the researcher's air-conditioned conference room, in the municipal building of the elected official with the photo of the current president on the wall, or below a village's palaver tree, and communicating respectively with a video-projector, a blackboard, or a sketch drawn on the loose soil of a cowshed, do not represent insignificant, anecdotal, or circumstantial choices. Such choices influence the ease of expression of each type of stakeholder and can help a participant feel comfortable and at home in an emerging collective.

▮ Launching the first activities

By quickly starting actual activities, we can help reassure the various partners of the approach's expected effectiveness. It is thus best to initiate the process by formulating well-defined and already-proven proposals or ones that will be tested at limited demonstrative scales.

However, a paradoxical situation can arise when it is the researchers doing the proposing. On the one hand, they have to advance proposals that enhance their credibility with the partners but, on the other, a failure will threaten the loss of that same credibility, irrespective of the reasons of the failure. The stakeholders may lose interest, thus impacting negatively the dynamics of the collective action.

Collective frustration, or even conflict between partners, can result if their respective expectations don't match, or when results are delayed or are not of the type expected. Obviously, these are not desirable situations, but they are no strangers in an ARP process. It is during



the evaluation stage that these situations should be carefully analyzed and solutions found for a continuation and improvement of collective action.



6. Enrolling stakeholders and the place of researchers

C. Castellonet and P. Pédelahore

The success of an ARP is linked closely to the ability of stakeholders to build trust between themselves and to manage tensions that may arise within the collective. The role of researchers in this collective also needs to be clearly defined. These aspects will be discussed in this chapter.

Enrolling stakeholders and building trust

The involvement of stakeholders in the collective presupposes a base of shared values and the availability of time and resources necessary to build trust. This process can be facilitated by a person who assumes the responsibility of managing the process and/or meditating between the parties.

As we will see, it is equally important to identify and take into consideration the various asymmetries and disparities inherent in the diversity of ARP partner stakeholders.

■ Importance of shared values

As seen in Chapter 1, an ARP is often a bearer of social change. Often, it also leads to organizational changes, even institutional ones, by addressing power equations within partner organizations. It modifies the traditional roles and positions of professionals and researchers, manual workers, and intellectuals (Freire, 1969).

Irrespective of the situation (Fals-Borda and Rahman, 1991), the ARP's ethical and political dimensions remain central. Without an agreement between the participants on a minimum core of common social and political values, fundamental conflicts will be inevitable and could erupt at any time. It is therefore essential from the very beginning to confirm that there exists a sufficient consensus on these values (Liu, 1997).

Two questions can help do so and they should be asked at the end of this initial phase, before taking the decision to launch an ARP:



- Do participants sufficiently agree with the others' viewpoints and on the ethical implications of the planned action?
- Are there explicit or potential common aspirations for all participants?

These shared values apply to a common worldview and ethics as much as they do to a desire for change. For example, are researchers ready to work with a farmer organization very closely linked to a given political party? Similarly, will an organization of smallholder farmers be willing to work with a research team specializing in farm mechanization or genetically modified organisms (GMOs)?

As it is difficult to determine both the desirable scope of shared values and the participants' real attitudes beyond their initially declared positions, it may become necessary to rely on personal experiences and even intuition.

It may also be possible to put the declared values to the test by simple experiments during the initial phase. For example, the fact that researchers can directly meet any member of the partner organization without its hierarchy being present is indicative of a willingness to be open and to strive for internal democracy.

The bigger the social and cultural gap between the various stakeholders, the more difficult becomes the mutual understanding and the verification of shared values. For example, communication between researchers and farmers is, without doubt, more difficult and requires more time than that between researchers and technicians, more so if the context is intercultural as is the case with projects involving international cooperation.

|| Building trust

Identifying common values and shared aspirations takes time. To be really effective, this process has to be accompanied by the building, in parallel, of an environment of mutual trust. In turn, trust will be built gradually and requires time; in fact, it often is a result of an ARP. Good mutual understanding is required, which develops via respectful dialog (see Chapter 5, "Emergence of the collective," page 69), respecting also of local codes of behavior such as those dealing with hospitality or the consumption of a ritual foodstuff, such as cola, adopting attitudes suitable for the rural environment concerned (language used, personal attitudes, respect for the tempo of life, etc.), or fulfilling agreed upon commitments.



Once this mutual understanding is in place, to build trust, one still has to consider whether one's interlocutor is reliable, confirm that he is not manipulating and twisting his proposals to suit his own narrow interests. In other words, one must know how to disassemble proposals, adjust all information received to take into account the oratorical style of the speaker and the little liberties with the truth commonly found in any speech, and analyze the eventual strategies used for deviating or instrumentalizing the project.

For researchers, this means, for example, to go from an initial stage of suspecting their farmer partners of hoping to benefit from project resources to one of discernment between opportunism and a genuine interest.

For the farmers, this means giving up a general mistrust of city folk – “Why would they want to have anything to do with us?” – to accepting their status as “bureaucrats” paid for observing and studying, yet without having any direct interaction with the rest of the State apparatus: politicians, police, etc.

There is no doubt that farmers find it harder to change their attitude than do researchers. In fact, researchers can gradually immerse themselves into the rural society whereas the farmers do not have the opportunity to do the same into the researcher's world, except when they participate at conferences, scientific debates, or study tours. But these opportunities are rare and, when they are do present themselves, require serious preparation and good organization, as shown in Box 4.

Box 4. Farmer-researcher roundtables: simple exchanges or true debates?

B. Sogoba, M. Togo, H. Hocdé

The international symposium on the management of agricultural genetic resources in the savannahs of West Africa, organized in Bamako, Mali, in May 2007, marked the conclusion of a participatory research project. It encompassed a wide range of topics such as biological diversity, decentralized varietal creation, participatory breeding, seed distribution and networks. It was a challenge to make the participants work together; many were not used to sharing such a stage. On the one hand, there were about 60 researchers, all used to academic debate, and on the other, about 30 farmers and some ten NGO personnel, not used to the verbal give and take in an amphitheater.

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How to make the farmers participate in the debate in an arena where the rules are usually those of the researchers? The answer was to organize roundtables to give voice to farmers, promote exchanges and advancing of varied viewpoints, and brainstorm the various forms of knowledge present at the Symposium.

During the roundtables, the coordinators, when they thought it necessary, would translate discussions or statements in Bambara to explain some essential points as well as to maintain the attention of an audience not fluent in French, the official language of the Symposium. Feeling more at ease, most of the farmers did speak and expressed their views openly..

What did the farmers have to say during the roundtables? “We discovered that varieties do not fall from the sky, they have to be created by man.” They also learnt to define ideotypes, to select plant material, and to characterize local varieties and their behavior in very diverse situations. They recognized that it is only in the climate of trust that was created during the project that farmers and researchers could really work together for creating millet and sorghum varieties (Grinkan, Kenikeni) and take initiatives such as the establishment of seed cooperatives.

Farmers left the roundtables satisfied to have been recognized and admitted to the world of the researchers. The organizers achieved their goal: their innovative way of concluding the project was a success and they showed the way for a dialog between two worlds used to working separately rather than together.

In practice, at what precise moment is trust initiated? How to trigger it? We begin to trust another person when he demonstrates his commitment. Box 5 illustrates this point.

Box 5. Building trust by being put to the test

H. Hocdé

At the start of an ARP process, researchers are tested, often without their knowledge, in several ways by their interlocutors, i.e., the farmers – and even by the farmers’ wives and families. The farmers test their ability to understand the environment they are setting foot in, their knowledge (“They know nothing about beans, but do have a good knowledge of the local geography”), their skills (“They are clueless about how our producers’ organization works, but they can very clearly summarize all we tell them”), and their positions

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("He had a brush with the minister's technician – who knows little – and put him firmly in his place"), their commitment ("He is not afraid to stick his neck out at this institution that is always scolding us over something or the other; he did us a valuable service"), their persistence in making the farmers participate ("We were not keen to present our work ourselves; he went to a lot of trouble to convince us and, finally, it all worked out"), their willingness to work ("Ah! Those ones, they are not afraid to roll up their sleeves; they are hard workers"), and thus arrive at "we can rely on them, on their word, we trust them."

In addition, the more the asymmetries and disparities between stakeholders are pronounced, more is the time required to establish trust. One has to pass some severe tests ("We want you to identify yourself, now, otherwise we will leave you here in the village and not take you back to headquarters; proper words and beautiful speeches are all well and good, but we want to know who you really are before we can continue") or have a good reputation already ("So-and-so, in whom I have total trust, told me: This one is ok, you can proceed with him!"). One has to decode the proposals ("Who amongst the decision- and policy-makers will attend this meeting, our meeting?") or be measured by actual work done ("We've been watching you for over a year and have spoken to our neighbors to make sure that you have not fallen into a trap and that there are no GMOs hiding in your 'improved' varieties").

There is really nothing out of the ordinary in all this. It is daily life and the expression of human nature, irrespective of the location and the teams we are working with. Whenever someone comes to a new place, he is tested. We should not forget this when we embark on an ARP!

■ Mediator's role

Relationships between stakeholders become much easier if there are mediators within the group. A farmer's son who is now a researcher or a professor, a farmer who worked as a research assistant, a local religious leader, or a teacher respected in the community can quickly "translate" the viewpoints of either side while retaining the trust of all concerned. They can play a special role as a facilitator of dialog within the action-research framework, not only during organized and official meetings but also during unofficial exchanges – which are as important, if not more so.

However, this situation is not always a comfortable one for the mediators themselves; they may be subjected to considerable pressure from the various participants. Mediators can also be tempted to benefit from their special position of true "brokers of development" (in this instance, of the ARP process) with the opportunity to manipulate the



various stakeholders, for example, by selectively filtering out some information for their own ends.

||| Asymmetries between stakeholders and roles in the collective

ARP advocates the recognition of the different types of knowledge contributed by the stakeholders and strives for a balance between the different types of stakeholders in the decision-making and coordinating processes (see Chapter 3, “Recognizing others’ knowledge and developing a common language,” page 41). Yet, building an ARP collective brings together stakeholders who have disparate levels of material and non-material resources and who thus find themselves in an asymmetrical position vis-à-vis each other.

This asymmetry should be recognized and dealt with to prevent the domination of any one stakeholder over another. In fact, these disparities determine the initial distribution of positions and roles between the stakeholders. Having access to resources can automatically lead some stakeholders to dominate the decision-making process and to adopt a coordinating and planning role. It also affects their level of participation in the project with respect to the other partners.

Differences in social status

The first source of asymmetry is the difference in social status, which translates into a difference of reciprocal recognition and legitimacy. The difference in status and educational level between researchers and technicians, on the one hand, and between technicians and farmers, on the other, translates into an asymmetry in ability on the farmers’ part to argue their case and advance their viewpoints in the face of more or less explicit disdain.

The researchers are representatives of public institutions having a State mandate to fulfill their mission and are often perceived as such by the other partners. Because of this, they carry a significant weight when they air their views, irrespective of the relevance of their opinions or of the suitability of their proposals.

Conversely, researchers too may not initially recognize that the representation and concerns of their non-researcher partners have legitimacy and value. Even when researchers are well-disposed and are eager to enter a dialog, they often perpetuate an unequal and asymmetric



relationship, which reinforces the farmers' inferiority complex. Darré (2006) refers to this as "symbolic violence."

The farmers' ability to adopt and defend their own viewpoints and have them recognized and respected depends, in particular, on how structured is the local environment, on how spokespersons are chosen, and on collective work already done on defining and hierarchizing local concerns and projects.

In some situations, quite common in countries of the South, there does not necessarily exist any already-formulated "farmer or local demand or requests." In such conditions, researchers have a tendency to put forward their own themes and approaches. This leads to ARP approaches that are researcher-led and thus asymmetric, and this in spite of declared intentions of giving a voice and lending support to the weakest section of stakeholders.

In any case, it is only by the "reflexive" practice of a respectful dialog, in implementing what Darré (2006) calls "coactive research" or what Freire (1969) calls "conscientization," that researchers and their partners can learn to reduce these deep social inequalities.

Unequal access to resources

Asymmetry also results from unequal access to information or financial and material resources such as computer centers and vehicles. Thus, in exchanges with a group of maize farmers ill-informed of market prices, an industrialist with up to date price information is in a position to "impose" his viewpoints and proposals.

Similarly, the fact that State bureaucrat or NGO representatives often have vehicles to help them get around gives them an upper hand in deciding the frequency, the dates, and places of collective meetings or of field visits.

Finally, the researcher or the bureaucrat is assured of his or her monthly pay and can thus invest his or her time in the ARP collective and leave an imprint. The farmer, on the other hand, has to think first of feeding the family and is therefore often less active within the collective.

Differences can also be more symbolic in character (the prestige of the dress, the educational degree, or position, for example) or can relate to the various participants' unequal abilities of expression and of negotiation. Indeed, not all participants will have the same capacities to be



heard, to express themselves clearly, and assert their convictions in a meeting that brings together different types of stakeholders.

Training and education (with specific modalities going beyond those of on-the-job learning processes, see Part 5, page 181) can play an important role in reducing these types of asymmetries, as Box 6 shows. Nevertheless, it must be recognized that asymmetries can even increase between ARP participants and non-participants or between those forming the inner core of the process and those on its periphery.

Box 6. A farmer university in north-east Brazil for co-constructing knowledge

J.-P. Tonneau and E. Coudel

The decentralization of public policies in Brazil has confirmed the immense need for skills and knowledge for local stakeholders to be real proponents of local and territorial development projects. Cirad, in partnership with the Federal University of Campina Grande and the Dom Helder Camara project, participated between 2003 and 2006 in coordinating a training programme for young rural residents in sustainable local development. The project, called Unicampo, was conducted in the semi-arid region of Cariri, Paraíba State, in the north-east of Brazil.

The challenge was to allow the stakeholders to valorize and strengthen their knowledge by organizing an exchange between local knowledge and university knowledge. This exchange took place via debates between participants, teachers, and researchers, made possible by the gradual building up of trust and respect. This training process – a sizeable investment – was part of a 12-month course for building human resources in a given area.

To promote real learning, the pedagogical process, inspired by Freire (1969), was structured around seven key questions: Who are we? What are our resources? What are our production systems? How to improve our situation? What are our projects? How to best implement them? How to manage them? The training consisted of classroom and practical sessions, valorization of the participants' knowledge, sharing of experiences, monitoring of the on-field implementation of the knowledge, etc.

These questions forced the stakeholders to question their own reality. They rediscovered it and then learnt to analyze it. In doing so, they gradually defined the projects that they wanted to implement in their communities and the manner of doing so, all the while affirming their identities and attempting to promote the use of local resources.

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This type of training to build up stakeholder skills shakes up established habits by introducing a new way of looking at knowledge and its creation. The young people can then become true advocates in their communities: they are trained to better understand their environment and to participate in negotiations with influential or “important” actors.

However, it must be admitted that going against traditional transmission structures, which generally are the source of power in public or private organizations, has a drawback. At the end of this training course, the young rural people have problems finding work in institutions entrusted with local and territorial development. Some are not even hired, being seen as potential “boat-rockers.” Others are often frustrated by their inability to find the freedom of action necessary to pursue this approach within the organization.

We thus see the limitations of individual empowerment and responsabilization: territorial organizations also require transforming.

Managing tensions

An ARP is a demanding and disrupting process. At the practical level, it requires time, effort, and discussions between people who are not in the habit of talking to each other. In addition, it can call into question the participants’ positions and public image. In fact, it asks frank questions, dismisses false evidence and ready-made truths, and uncovers hidden conflicts of interests.

Managing information, a sensitive topic

An ARP produces validated information, hence difficult to contest, a benefit derived from following strict research procedures. This often modifies the power relationships between various stakeholders and organizations since information is an essential component of power. Its impact depends on the way it is disseminated, to whom, and at what time.

Researchers often find themselves confronted by the age-old dilemma: Should all truths be revealed? In our context: Should some research findings be held back, at least temporarily, in an effort to prevent a rise in tensions or to avoid drawing the ire of powerful people who can hamper or even block the process?

Another dilemma for the researchers: How should they handle the sensitive situation of a participant confiding in them on a confidential basis and revealing sensitive information, on his organization’s political strategy, for example? Researchers can also “forget” to consult



their partners when publishing articles or books originating from the ARP approach, which may see print several months or even years after the active phase of the ARP. Is it desirable, ethical, or even practical to submit all publications originating from the ARP to stakeholders for their approval?

On the flip side, farmers may hesitate to reveal sensitive information about debates and internal conflicts within their organization. If revealed this information may aggravate existing conflicts or upset delicate balances.

Researchers' observations sometimes contradict the official viewpoint of farmer organizations on sensitive topics such as the environmental and social impact of their agricultural practices and policies. In such cases, the organizational leaders may be tempted to "control" the public speech of the researchers and to limit their contacts with their farmer-members or with public administrations.

■ Temporal aspects of the research and the action

The "researcher's time" is not the same as the "farmer's time." The researcher's activities, such as a survey, a measurement, or an experiment, take place over short and planned periods. Activities of the other stakeholders, especially the farmers, on the other hand, can go on for long and uncertain periods (a crop cycle, field activities subject to climatic vagaries).

Conversely, the researchers' findings are less easily planned and are often delayed, whereas the other stakeholders' expectations *are* urgent and impatient: they want applicable results and advice fast. This difference may lead to a disinterest in the project and engender doubts on the abilities and real intentions of the researchers and on the hundreds of interviews they conducted and thousands of notes that they took. Insidious rumors may make the rounds: "Who are they really working for? Are they giving advice only to the rich investors? Are they helping foreign firms appropriate farmers' lands and varieties?"

Holding regular report-back sessions to present and discuss research findings, even provisional ones, helps bridge this divide to a certain extent. Presenting the initial results of agronomic tests as quickly as possible, just after the harvest, helps the farmers concerned to compare their experiences and to draw lessons for the following year.

However, such presentations and feedback will not resolve all dissatisfaction. They can even contribute to the frustrations, especially if the



results seem insignificant or apparently just repeat what the farmers already knew, for example the history of their farms or the tensions between crop farmers and livestock breeders. Was it really necessary to spend six months in collecting data to come up with this trivial result?

Sense only begins to emerge when these presentations lead to collective debates. Questions and doubts can then be discussed openly which were taboo or simply kept unnoticed until then for one reason or another. A survey can reveal, for example, the phenomenon of concentration of land ownership and rural exodus, known by all but never discussed in community forums so as not to antagonize farmers with large landholdings.

▮ Inevitable conflicts

One may take all the precautions one can but an ARP can still provoke tensions and conflicts due to the disruptive nature of the information it generates and disseminates. These conflicts often reveal the stakeholders' strategies (see Chapter 5, page 69). It is an opportunity to analyze the interests involved, the stakeholders who are reacting, and their reasons for doing so. Negotiations should then be conducted to resolve or overcome these conflicts.

Negotiations will go easier if the conflicts had been anticipated at the launch of the ARP and if suitable resolution mechanisms have been put in place (see Chapter 5, "Criteria for selecting members of the collective," page 69 and Part 3, page 107). Nevertheless, safeguards and mechanisms initially put in place in consultation with the partners may not be able to handle some conflicts, especially since agreements entered into within an ARP are relatively weak and temporary and rarely involve long-term contractual institutional arrangements.

Role of researchers

Action-research situations lead researchers to question their professional practices. They view their place in an ARP mechanism as unique, either because they are at its origin or because they are entrusted with specific roles as leaders, managers, translators, or mediators, or because they represent a world and knowledge unfamiliar to other stakeholders. It is therefore necessary to examine their interests, the functions they assume, and the roles they play.



■ Interests of the researchers

Taking the stakeholders' rationales into account, for example that of farmer families, in any research or development activity is now relatively common. On the other hand, explaining the rationale of the researcher in doing so is less common. And yet, the researcher is also a social actor who is answerable to the institution that employs him or her and who is making a career by following certain established norms and practices, including those of scientific publishing.

This may not be taken for granted by the non-researcher stakeholders. For example, the publication of findings from research conducted within the framework of an ARP can be perceived by some local stakeholders, who contributed to it "in confidence," as espionage, a betrayal or a theft in pursuit of benefits they little understand but which they assume are significant or dishonorable. A simple effort to explain things to them, often via trusted intermediaries, goes a long way in avoiding such potential disillusionment.

■ Specific role in managing the collective

When the researcher is the ARP's proponent and the provider of material resources, he or she usually assumes the role of the manager of the emerging collective and of being the intermediary with other researchers. The researcher can also play the role of translator between different scientific domains or scientific approaches, on the one hand, and perceptions and concerns of the local stakeholders, on the other.

To be able to play this role properly, the researcher has to step back from his or her own discipline, perceptions, and personal or institutional goals. He or she should also be able to be involved as much as possible in action as in generating knowledge and should fully participate in the transformations taking place. The traditional researcher, neutral and playing the role of an external observer, has to be substituted by an actor-researcher whose involvement in the action is an integral part of the research process (see Chapter 2, "Main justifications," page 31).

■ Specific role in constructing the problem-set

The researcher plays an active role in the "maieutics" exercise (constructive dialog) which helps the collective construct the problem-set that has to be addressed. Starting from difficulties expressed by the farmers as complaints or concerns, "We cannot sell our cassava as well as we would like to," the researcher can clarify the specific problem(s) encountered by asking these questions: Are you left with



unsold produce? Or is it a question of selling price? Do you have difficulties in selling the whole year? How can the sale of cassava be improved during the most favorable periods?

A direct exchange is not always the most effective form of dialog between researchers and farmers. A mediator should sometimes be called upon to help formulate not only the questions for resolving a problem, but also the research questions themselves. There are different reasons to involve him: he “speaks the local language better” (the language itself and, more importantly, the way of saying things, see Chapter 5, “First steps of the collective,” page 69) and can help reduce disparities in status and their consequences.

Researchers are often in a hurry, imposing their reasoning and their rhythm on the farmers (the notion of “symbolic violence” mentioned above). Calling on one or more mediators slows down the pace since the researchers’ findings and the questions they want to ask have to be first explained to the mediator. Only then can a second meeting with the farmers be held, a meeting which will be managed by the mediator. The involvement of mediators complicates the process but can end up improving its effectiveness.

Researchers can also help identify approaches and tools appropriate for defining the problem-set and to point the way to its possible solutions. Thus, revisiting the previous example, after having shown that the problem was primarily one of oversupply and the resulting low prices of fresh cassava tubers, researchers can propose to analyze the functioning of the cassava supply chain to identify implementable solutions.

The researchers should therefore be willing to modify their original research questions to reorient their work towards finding a solution to the problem as defined with the stakeholders. They should also recognize the knowledge of all stakeholders and their ability to produce new knowledge (see Chapter 2, “Main justifications,” page 31). It is more a matter of the clash between different types of knowledge than of its diffusion (from the technician or scientist to the farmer), as can be seen in Box 7.

Balance between impartiality and involvement

The researchers have a special position in an ARP group, not only because of their skills but also because of their supposed objectivity and impartiality in analyzing observed phenomena or situations.



Box 7. Malagasy farmers question researchers: Who are you?

H. Hocdé

In March 2001, farmers of Anandrobe village in the region of Lake Alaotra in Madagascar play host to some thirty visiting researchers from various countries. They take them all over the area to show them their plots and their adoption of mulch-based direct-seeding techniques. The visitors divide themselves into three groups. One of these groups, consisting of seven persons, interviews three male and one female farmer at length. The researchers are most interested in the history of their association called Tafaray (which means “uniting successfully”) consisting of 60 members from a total of 250 families spread out over the village.

As the discussions are fruitful and time is running short, they decide to meet again the next day (thus disrupting the official tour program). Only a single condition is attached to this second meeting: a reversal of roles. The researchers will refrain from asking questions; it will be the farmers who will ask them questions.

The next day, the farmers accordingly meet with a group of 10 researchers: a weed specialist, a biometrician, an agrologist-biostatistician, two agronomists, a zootechnician, two physiologists, a systems agronomist, and a morphopedologist. These researchers work in France, Mexico, Brazil, and in Cameroon. Some of them have worked in Madagascar in the past.

The farmers decide to find out more about their visitors: “Who are you? Introduce yourself. What is your specialty? What work do you do? If you asked us so many questions yesterday, it means that you can contribute something to us.”

Some examples of the questions they asked:

– “Why do you ask us questions about our velvet beans since it is you, the *vazaha* (foreigners), who asked us to cultivate it? You tell us that you have been in Mexico for eight years, that you work with velvet beans and direct seeding. Then what is the stage you have reached since all this time, where as for us, we have just started cultivating it?”

– “If you are working on the association of agriculture with livestock, can you tell us which is better for us: growing crops or animal farming? Can we maintain a herd of 1000 heads of cattle on 110 ha of hilly terrain during the rainy season?”

– “If you are mapping our lands, can you tell us where to plant our crops? Which of our plots are suitable for direct seeding? Can you tell us where to find rubies?”

– “You specialize in weeds, so what do you know about herbicides? How do the herbicides we use get rid of the weeds? Do you make herbicides at Montpellier? What are the long-term risks of the herbicides we use?”

– “What do you think of the soil of the plot (maize with velvet beans) that we visited?”

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– “I hear you are from Brazil. Can you tell us something of the performance of the “8FA3731” rice cultivar that comes from there?”

It goes without saying that the subsequent discussions were intense and wide-ranging. The visitors came out of the meeting impressed by their hosts’ knowledge and perseverance. They always knew that farmers have their own ideas and areas of interest, but they had never thought of creating an environment that would allow them to find out what the farmers think about and what they want to say. After all, how many interviews, surveys, and meetings conclude by “And now, if you asked me questions instead of answering mine...”? “You specialize in weeds, so what do you know about herbicides? How do the herbicides we use get rid of the weeds? Do you make herbicides at Montpellier? What are the long-term risks of the herbicides we use?”

– “What do you think of the soil of the plot (maize with velvet beans) that we visited?”

– “I hear you are from Brazil. Can you tell us something of the performance of the “8FA3731” rice cultivar that comes from there?”

Nevertheless, this impartiality has been called in question for quite some time now from the epistemological point of view and due to changes in the relationship between science and civil society (see Chapter 2, “Main justifications,” page 31).

The involvement of researchers comes into focus when technical, social, ethical, or political choices have to be made as part of solutions to local problems. For example, should middlemen be eliminated? Wouldn’t the recommendation of using chainsaws lead to faster destruction of virgin forests?

Moreover, the trust – or sometimes even respect and friendship – that builds up between researchers and some partners can interfere with the analysis of results due to a lack of the necessary distance.

Finally, the involvement of researchers in action requires them to make explicit choices, take risks, and specify activities which they will be responsible for. If the solution they have proposed for on-field implementation fails, will they still be able to analyze and present the results of failure and their causes objectively, even if they lose the recognition of the group and their own legitimacy is endangered?

These difficulties should encourage the researcher to work as part of a team of several researchers, if possible from across disciplines, and to adopt a habit of self-reflection. It also helps to establish scientific authorities outside the ARP collective, such as scientific committees



(see Chapter 8, “Governance mechanisms,” page 107). These two modalities will go a long way in helping the researcher take the necessary distance from dilemmas and from the inherent contradictions of an ARP.

▮ Researcher motivations

Even if a researcher acquires the same knowledge and skills as the other stakeholders as part of an ARP approach, his specific position allows him to also derive professional satisfaction from helping resolve a problem (increased revenues for cassava farmers, for example) and from being part of a process for enhancing the other stakeholders’ knowledge and skill sets. In addition, it allows him to produce publishable knowledge, which has a generic value because it is valid beyond the specific local context in which it was generated.

On the flip side, the ARP researcher finds himself often out of step with his colleagues and his institution. In fact, many researchers and institutions view ARP as a form of marginal scientific activity and attach little prestige to participating in one. They find it to be time-consuming and something that distracts researchers from their core responsibilities (see Box 8).

We, however, look at it differently: an ARP can be very productive from a purely scientific viewpoint because it forces the researchers to continuously question their paradigms and methods of working. It is a powerful generator of new research questions and methods which, once identified, may often be dealt with in the framework of more conventional research. Many major discoveries have resulted from observations made during applied research, in close interaction with the stakeholders.



Box 8. Managing relations between ARP researchers and their institution

B. Triomphe

Even if individual researchers can be convinced, due to personal interest or their own past experiences, to participate in an ARP, the institution they are attached to may not feel the same way. Both in countries of the North as well as those of the South, institutions may be reluctant to let their researchers participate in an ARP. The difficulties that a researcher could confront are of several types:

- An unfavorable institutional culture which is characterized by hierarchical decision making, by not being used to working in partnership, by harboring prejudice against stakeholders from the development sphere and against the legitimacy of their knowledge and abilities, by weak interdisciplinarity, and by internal competition for resources – which leads more often than not to their allocation to conventional commitments and approaches;
- The rules, conventions, and values (more or less explicit) that exist within the institution or the scientific community in general (the famed issue of peer recognition and approval) and which shape and limit the individual's or the team's freedom of action. For example, inflexible work schedules, evaluation modalities that are not sympathetic to risk taking and working with stakeholders, inflexibility in the types of research products expected (priority for academic scientific publication), and inflexible funding methods and conditions;
- Difficulties in identifying and mobilizing persons with sufficient skills and experience to undertake an ARP approach.

Nevertheless, a researcher also has the possibility of asking for and obtaining the necessary approval from his or her research institution, even, ultimately, of contributing to changing its perceptions and practices. Some practical suggestions to help him do so:

- Relying on the experience and advice of others in the institution who may have participated in ARP or similar approaches in the past;
- Enlisting the support of a mentor who is amenable and is well-placed in the institution's hierarchy, and who is able to open doors and to protect the researcher in case of subsequent difficulties;
- To be ready, if necessary, with counterarguments when presented with concerns and the usual criticism of the ARP approach and its proponents. Common statements one has to address include, "An ARP is not research, it is development." "We researchers do not need the help of others to design innovations and to transmit them; it is *our* job." "ARP is not an established approach; just simple concepts whose value has never been proven." "It is complicated; we wouldn't know how to go about it. It is a subject for specialists in the social sciences; other disciplines should not get involved." "It does not allow a researcher to do 'proper' science and to publish articles." "ARP has misplaced pretensions of substituting other types of research."

...



...

- Active involvement in intra- and inter-institutional communications on the ARP project, via the organization of seminars, meetings with partners, etc.;
- Regular renegotiation with his institution of deadlines, budgets, and time commitments to the project, and of products expected from it based on concrete results obtained at the end of each stage of the ARP project. This is because an ARP project evolves dynamically and this helps update expectations and keep them realistic.
- If possible, organizing training sessions such as researcher-courses and theoretical-practical workshops to raise awareness amongst colleagues, maybe even enroll some of them;
- Finally, remembering to publish as often as possible in scientific journals, presenting and valorizing various intermediate results or methodological aspects.



7. Introducing ARP rooted in partnership: the Unai project in Brazil

*É. Sabourin, B. Triomphe, H. Hocdé, J.-H. Valadares Xavier,
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Using the example of the Unai project in Brazil, this chapter examines the transition from a conventional participatory development-research approach to an ARP-based one, relying on an already established solid partnership.

Context and issues

Unai is a large *município* (district) of 8500 km² in north-western Minas Gerais state (175 km from the federal capital, Brasília) and part of the Cerrado region. It is marked by an inequality in the access to land: 65% of farms are family owned but they occupy only 13% of the cultivated area. Family farms resulting from agrarian reforms are the most precarious: low-fertility soils, lack of outreach and extension programs, difficult access to credit.

The main produce of these family farms is milk. Most of the newer farms are undertaking measures to increase milk production: improvement of pastures and fodder systems, acquisition of better animal stock, and installation of chilling tanks. The main crop in the area, maize, suffers from problems of soil preparation, seed quality, and control of weeds, but it exhibits great potential including as a fodder resource (silage).

It is in this context that Embrapa and the University of Brasília (UnB) launched a participatory development-research project in 2002. Its aim was to provide support to family farms created from agrarian reform. Cirad became involved in the project in 2004. The project concentrated on four major axes:

- Developing technical-economic references on production systems;
- Promoting the insertion of farms into markets;
- Building the capacities of farmer associations;
- Training young rural agents of development originating from agrarian reform.



Stakeholders and origin of the approach

The UnB-Embrapa research team first entered into a partnership with farmer associations in three settlements of agrarian reforms and their district union which was very active in the struggle for land reform. It also entered into separate agreements with the Minas Gerais Company for Technical Assistance and Rural Extension and the Unai Agricultural School.

Based on participatory diagnosis and formulation of action plans negotiated with each association, this approach relied above all on the resolve of the researchers. It produced concrete results for the farmers: “Thanks to this research, we now know how to improve the quality of our milk.” Or, “With direct seeding, we can now plant maize or beans without the fear that there will be nothing to harvest.” But the amount of time researchers spent in supporting and participating in the farmers’ activities led to a reduction in their time for producing generic knowledge.

Other limitations came to the fore when farmer associations and local authorities asked researchers to change the scale of their intervention: to go from the original 3 settlements to encompass all 25 settlements in the Unai district. There were two primary concerns in this potential expansion:

- How to work with farmer associations and development agents to best meet the demands of the district union and the associations?
- How to structure an action-research approach which tackles innovation both in its technical aspects as well as in its organizational ones?

Reflections on the degree and type of involvement

These two questions formed the starting point for reflections on how the ARP approach could make useful contributions without actually trying to recast the entire Unai project around it.

In reflecting about ARP, research topics and questions were identified for which researchers considered that contributions from farmers and agents of development would not only be useful but even crucial in resolving problems identified during the earlier diagnoses.

On the face of it, a strengthened partnership should have helped save time, arrive at results most suited to both the diverse and specific



conditions reigning in the area under study, and facilitate local appropriation in view of the proposed change in scale (learning, training, information, and disclosure).

Finally, the requirements proposed under the ARP framework of formalizing the partnership and clarifying the approach seemed to offer the benefit of helping to clarify the roles of different partners and to empower the local stakeholders, in particular the farmers and their associations. “These researchers take the time to explain their methods, even practically, to us. Those earlier ones wouldn’t even get out of their vehicles.... These explain everything to us.” “One day the project will conclude. For some of us it will be more difficult than for others. But we will be able to progress even without the researchers.”

The ARP’s place in the project was gradually defined, and an “ARP collective” constructed, via four workshops centered on exchanges of experiences and methodological training in the principles of action research. The first was held in end-2005, the last in mid-2007.

The first one, at the end of 2005, brought together researchers from Embrapa, Cirad, and UnB; and teachers from UnB and the Unai agricultural school. It focused on the need of formalizing and structuring the partnership and on the necessity of helping farmers become true interlocutors. The ARP approach and its monitoring methods were then tested for setting up new activities related to direct seeding, a new type of cropping systems being developed within the framework of the Unai project.

The second workshop, in May 2006, brought together representatives from 15 village associations and the Unai district farmers’ union; and the research and teacher teams. The farmers made two key requests: getting proper access to technical support and extension, and insertion into markets: “All these diagnoses are all well and good, but something practical has to come out of them; we need technical support. We are quite capable of production. The big problem is of selling our produce.”

These requests led to a series of joint actions by mixed commissions consisting of farmers, researchers, and trainee technicians: monitoring and negotiation of the price of milk and the setting up of a team of technicians embedded with the farmers’ union.

The third workshop, at the end of 2006, was focused on the articulation of the activities of the researchers and those of the young technicians



originating from the settlements. Responding to the needs of the local organizations, these technicians were in a position to form technical assistance teams and even to expand their activities beyond their immediate environment and change the scale of their intervention.

The final workshop, in June 2007, brought together farmers, technicians, and researchers to analyze the functioning of thematic groups (focus groups) which had been formed in earlier years on different issues (milk, direct-seeding, processing and marketing of indigenous fruits) and to capitalize on the critical evaluation of the various experiences. It helped deepen the understanding of key ARP concepts (empowering, formalizing, imparting autonomy) and to incorporate them into these focus groups.

These workshops were complemented and supported by various training and information sessions on the management of direct-seeding cropping systems. These sessions were organized every year and included field visits, technical demonstrations, reciprocal visits to farmers' experiments, and external study tours. "For a farmer, grand theories mean little, but when we see things implemented in the field and can discuss them with other farmers and technicians, then we understand much faster."

Activities conducted as part of action research in partnership

Reflections carried out on the ARP led to the introduction of new activities into the project:

- Construction of questions that were common to researchers, technicians, and farmers, mainly on direct-seeding systems, but also on the marketing of milk, technical support and assistance, and other topics;
- Organizing discussion sessions on the character and evolution of the partnership and on each partner's specific role, especially as relating to experimental set-ups on direct seeding and to focus groups on "direct seeding" and "promotion of local fruits."
- Establishing an experimental network for direct seeding. It consisted of on-farm and on-station trials and revolved around the setting up and monitoring of three "direct-seeding" focus groups;
- Reflexive analysis of research-development approaches and methods based on observations and interviews.



Some results obtained

Reflecting on the partnership helped participants make the distinction between partner institutions (research, farmer associations, agricultural school) and institutions that collaborated only when necessary (extension service, district government, milk cooperative, Unai technical faculty). It also helped clarify the allocation of roles, division of responsibilities, and the decision making process.

Its most direct impact was that it clarified the roles and functions of researchers in their interaction with the other stakeholders. Consequently, today researchers are conscious of maintaining the necessary and difficult balance between knowledge creation and involvement in action. They recognize that they can no longer play the multiple roles they did in the initial project phase.

Asymmetries also started to be reduced. Researchers had enjoyed, from the very beginning, the upper hand in managerial matters and in financing the various activities. They were thus rule makers, for example, deciding who could call meetings and who would manage them. It was only natural for farmers to consider them decision makers (“the powerful ones”) and the source of information and services.

Goodwill alone does not overturn easily established routines. Nor is it easy to reduce and then reverse a fundamental asymmetry by introducing concepts and practices of a more balanced partnership and assigning responsibility and granting independence to the other actors – farmers and agents of development. A tremendous effort is required to socialize objectives and methods, as well as to adopt transparent and negotiated mechanisms to divide work and responsibility.

The four-step training helped reduce asymmetries. Bringing together widely disparate stakeholders for training helped construct a viable partnership. In addition, these specific training sessions helped build the capacities of the weakest stakeholders, the farmers and young technicians, so that they were better prepared to interact with other stakeholders, be they politicians, technical and administrative services, cooperatives, or businesses. But progress on these various fronts was only achieved up to a point. “Amongst us, we are not shy to speak up. But in front of technicians and politicians, we daren’t open our mouths.” Also imparting training step- and topic-wise requires a multiplication of training events.



Thanks partly to ARP, researchers adapted the work calendar as best as they could to the farmers' schedules. Some researchers did not want to or could not work on Saturdays and Sundays, even though those were the days often selected for meetings of farmer associations, for holding local markets, and other events. Farmers, on their side, were not always available to meet researchers and were afraid of losing too much time in meetings.

A compromise was found to arrange meetings at noon or in the early afternoon, after the lunch break and during the hottest period of the day. Some activities, such as field trips or meetings with all members of the associations were scheduled specifically over the weekend to allow the maximum number of farmers to attend.

The researcher-farmer dialog and the work methodology relating to direct-seeding cropping systems were reviewed. Farmers and researchers validated several different types of technical references coming out of the experiments. Tests in farmers' fields were complemented by tests in controlled environments at the agricultural school, by reciprocal visits, by thematic training, and by monitoring and evaluation which led to collective back reporting with the members of focus groups or the community.

Some routine activities implemented in earlier stages, like the monthly monitoring of a network of reference farms, were gradually eliminated. This freed up time for monitoring experiments and thematic focus groups. The existence of focus groups as merely practical contact groups for meetings called and organized by the researchers was seriously called into question.

Efforts invested in reflexivity about the approach helped show the limitations of the existing set-up, in particular the limits of participatory methods, poorly understood or perceived by the farmers. They helped redefine the modalities of training and to suspend, for the time being, the plan to expand the approach to the entire Unai district until the various stakeholders, researchers included, were truly ready to tackle such a scale.

Summary

The Unai project is a good example of a situation where research intent met the will to change. Highly committed researchers saw how they could make their profession more effective and meaningful if



they modified their roles to fit the three ARP objectives: resolving problems, generating knowledge, building autonomy.

The sequence of progressive training sessions played a key role in transiting from a development-research approach to that of an ARP. Self-analysis of project stakeholders' practices, of the processes for co-building set-ups and activities, and of the results, along with theoretical inputs on action research, helped facilitate the sharing of knowledge while developing team cohesion around shared principles and values.

Whenever necessary, facilitators did not hesitate to shake the local stakeholders or to push researchers out of their scientific entrenchments. Such a contribution was particularly significant. Facilitators insisted on the different visions of each group: "What does direct seeding mean for you?" or "What, according to you, constitutes a good focus group?" They drew up possible scenarios and simulated the ARP's method of functioning out of everyday professional situations.

Deceptively simple questions powered the dynamics. For example: "Why are we organized in this manner?" or "How do the experiments we are conducting or the negotiation strategy we are implementing to improve the quality and price of milk contribute to empowering farmers or modifying their usual role?"

Finally, the planning and conduct of the training sessions in full partnership also contributed significantly to this transition.

Four verbs describe succinctly the takeaways from the use of ARP in the Unai project: empower, formalize, define the roles, negotiate.



Conclusion

Building the ARP collective is a critical stage. It is closely interlinked with the collective construction of the problem set and impacts the collective's ability to resolve it. An ARP project's proponents, whether they be researchers or not, have to enroll individuals and institutions.

While it is normal to take the representativeness, legitimacy, and expertise of the participating stakeholders into account, it is strategically important to also consider the pre-existing relationships between them, their power relationships and alliances, and explicit or hidden motivations – to the extent that these can be deciphered at this early stage.

Building a collective takes time and the ability to listen. It also requires measures to facilitate dialog and to kick start the first concrete actions.

The functioning of an ARP collective shows that partners must share a minimum level of values while recognizing differences that may exist between them. It is also important that asymmetries relating to material or non-material resources, in particular between social groups on the one hand, and between researchers and the other stakeholders on the other, be managed by building trust, relying on explicit rules, and by mobilizing acknowledged mediators.

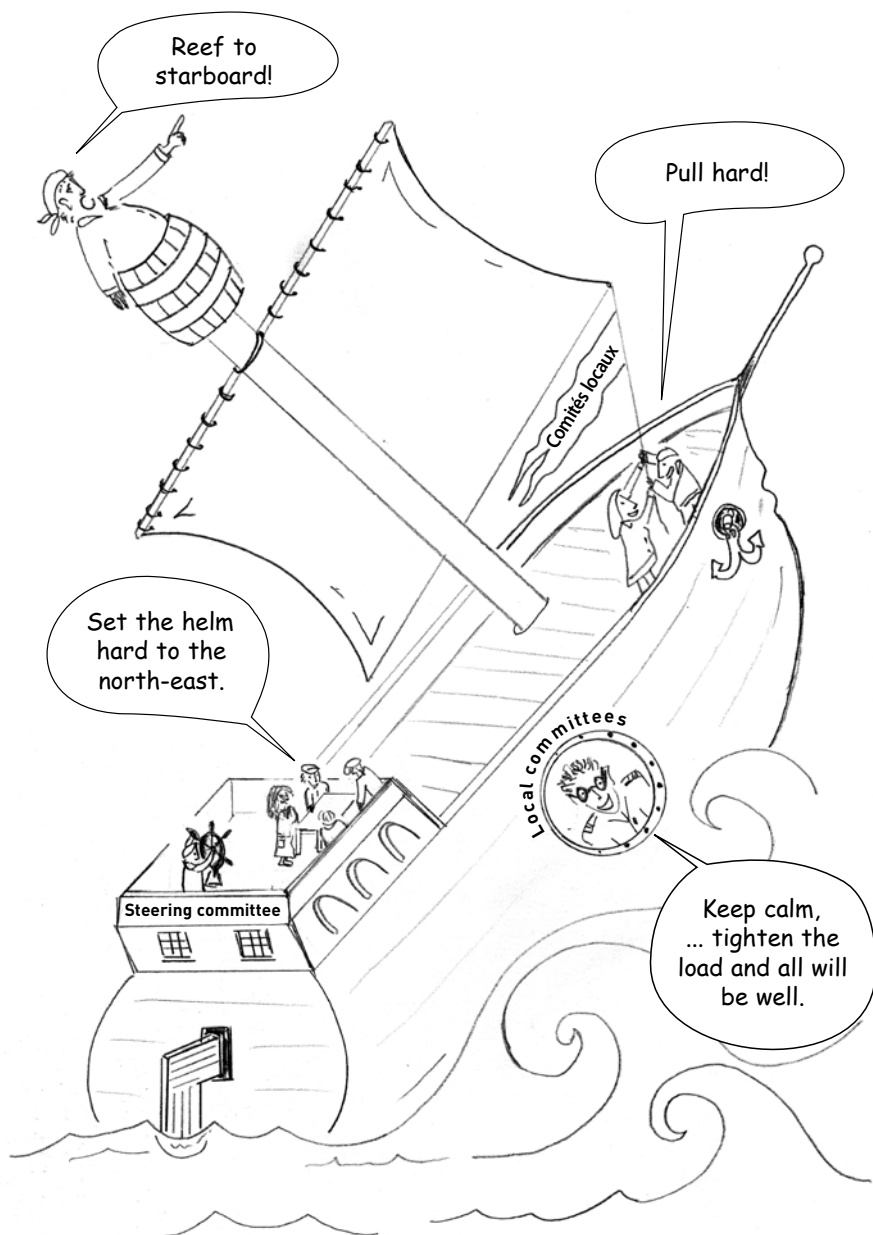
The researcher has a unique place in an ARP. He or she is often one of the initiative takers of the ARP project and participates actively in defining its problem-set. Sometimes, researchers will even manage the process itself. He or she will have to make a special effort to maintain a balance between involvement in the activities with stakeholders – reflecting a proximity to some of them, or even at times a connivance – and the detachment necessary to dispassionately analyze the processes in progress and to formalize rigorous results.

Researchers do not necessarily, by themselves, think of explaining their motivations to the rest of the collective; they have to make an effort to do so. Finally, difficulties may arise and tensions may be provoked as some research hypotheses are not always shared or as publication of results in articles have not been sufficiently discussed beforehand.



Part 3

Making action-research in partnership work



Here we are on the open sea, the wind is picking up...
Each man to his post and let us stay the course!



8. Governance mechanisms

H. Hocdé and G. Faure

In this chapter, we discuss the general framework necessary for an ARP to be put into operation and show that specific decision-making mechanisms have to be implemented.

From stakeholder coordination to governance

How to make the various stakeholders work together throughout the various research stages? The answer to this question lies in an effective coordination: actively involving individuals and institutions, obtaining explicit commitments from all of them, and also ensuring that there is an equitable division between partners of responsibilities, access to resources (funding, infrastructure, and skills), expenses, benefits, and associated risks.

An effective coordination enables the stakeholders to:

- Explicitly state and acknowledge the diversity of individual viewpoints;
- Define goals, work plans, and the means to be used;
- Specify the expected results on three levels: resolution of the problem, creation of knowledge, building stakeholder autonomy;
- Organize the evaluation of results based on criteria defined by the stakeholders;
- Define the rules governing the ownership of the results obtained;
- Define each participant's responsibilities (tasks, participation level, etc.) and how they may evolve as the project progresses;
- Anticipate and plan for managing unexpected events, crises, and readjustments;
- Manage relations with those external to the project;
- Plan for the future, for example, by consolidating the ARP findings within institutions to ensure the process's sustainability.

That said, for an effective coordination, it is also necessary to establish decision-making mechanisms. Who decides what? All ARP actors have to agree on an arrangement for this, in other words, they have to decide on a governance mechanism for their research in partnership.



The term “governance” incorporates the phenomenon of a multiplicity of locations and actors involved in the decision-making process – in stark contrast to the conventional hierarchic process which originates with a single individual or higher authority and requires everyone’s obedience. It comes down to putting in place adaptable management mechanisms based on the partnership among the various stakeholders.

Thus every participant of an ARP project is concerned by its governance, ranging from local stakeholders (farmers, farmer organizations, local institutions, spokespersons for local civil society) to institutional ones, operating at a larger scale (research, training/education, public sector, private operators, funding entities).

Defining an ethical framework

Because the ARP relies on values and attitudes, its governance naturally refers first of all to the concept of ethics. Defining an ethical framework for activities and involvement is therefore a priority. Ethics require us to ask what is good, what is bad, and how to conduct ourselves during our involvement in the project. What is ethical is specific to a given context, depends on what participants understand by “doing good,” and the commitments they make to do so.

Some funding entities are increasingly insistent that the ethical dimension be also included in project proposals (see Chapter 15, “Constructing a multi-source funding strategy,” page 197). It is at this time that the values shared by the participants and the rules that they decide on should be clarified as far as possible.

Box 9 presents the ethical commitments in ARP approaches conducted in Burkina Faso and Cameroon, expressed in the form of statements of intent.

Once applied, these ethical commitments become real and take very practical forms, as can be seen from an example from Brazil, see Box 10. The Brazilian research organization, Embrapa, and a farmer association (*Sindicato dos Trabalhadores na Agricultura Familiar de Anchieta*, Sintraf) spelled out, in the form of a ten-year contract, the rules for using a variety of maize created by the farmers and researchers in a participatory breeding project.

In other cases, it is the researchers alone who assume an ethical framework. Thus, a researcher network called ComMod (Companion Modeling), which develops computer models to help stakeholders



Box 9. An example of ethical commitment (extract from a project document)

M. Dulcire

“At the start of our research activities in partnership, during the intervention phase, we commit to discussing and building an ethical framework with our partners for our involvement, both for the ‘means as well as the ends.’ This relates to: (1) each participant’s role, (2) use of data, (3) publication or presentations at meetings, seminars, etc. of documents concerning the experience, (4) back reporting of results to partners, (5) valorization of results obtained by citing the concerned and involved stakeholders, and (6) withdrawal of researcher teams at the conclusion of the program.”

take decisions (Étienne, 2011), lays down four ethical principles in its charter. Firstly, the researcher has to involve himself in supporting the processes undertaken by non-researchers by using research findings. Secondly, research hypotheses and procedures for conducting research should be completely transparent. Thirdly, the scope of application of any model developed should be clearly defined. And, lastly, the proposed approach should constantly be evaluated and questioned with a view of improving it.

The ComMod network thought this charter necessary to guard against the risk, conscious or unconscious, of the instrumentalization of research or even of manipulation of the decision-making process. In this way, situations which may be considered undesirable by the stakeholders are avoided.

Box 10. Material transfer agreement between Sintraf and Embrapa

A. Toledo Machado

Sintraf will transfer genetic materials to Embrapa without guaranteeing their purity or quality.

Embrapa:

- Undertakes it will never claim intellectual property rights on all or part of these materials;
- Assumes legal responsibility for all losses, if any, caused by these materials;
- Undertakes to inform Sintraf if any harmful effect of these materials is detected;
- Undertakes to mention Sintraf by name in any publication relating to these materials.

Signature Sintraf

Signature Embrapa



Implementing ethical intentions is almost always more difficult than declaring them, including when ARP results have to be published after a project has been concluded. If the ARP researcher-practitioners did not hold timely discussions with the other stakeholders on the modalities of publishing and communicating the findings, their declared intentions may remain mere noble words.

To summarize: the challenge lies as much in implementing ethical principles as in defining them. Only when both are dealt with can an ARP's specific and original requirement of an ethical framework be said to be fulfilled.

Constructing decision-making structures

Concrete implementation of an ARP consists of two interconnected aspects: the decisional and the operational. The first is strategic in nature: How are decisions taken? In what form? Who takes them? When? The second is more tactical and relates to the implementation of activities.

We can thus consider the ARP set-up as divided into two: governance structures (decision-making mechanisms that bring together different types of stakeholders for different types of decisions) and operational set-ups (a set of experiments on a given theme, a series of workshops to address a question, a platform for producers and processors to improve the functioning of a sector, etc.). Each individual set-up may enjoy some degree of autonomy while still being linked to the others.

A given set-up consist of stakeholders who organize in a certain manner, agree on specific rules, and have access to resources which allow them to undertake activities in pursuit of specific goals that contribute to the proper functioning of the ARP. The set-up is the place where sites and times for stakeholder interactions are organized.

We know that interactions and the clash of different viewpoints, knowledge, and knowhow promote the emergence of innovations. The type of architecture and the mode of functioning of the set-ups put in place play a critical role in encouraging and stimulating these interactions.

A set-up's makeup depends very closely on the trajectories and strategies initially adopted for constructing the ARP project (see Chapter 6, "Enrolling stakeholders and the place of researchers" page 79 and Chapter 7, "Introducing action research rooted in partnership: the Unai project in Brazil," page 97). For example, two different strategies,



one initiated by researchers who are looking for partners for launching an ARP-based project, and another initiated by stakeholders who are willing to establish a dialog with researchers, will lead to the establishment of very different set-ups. Note that the cases of ARPs initiated by researchers are much greater in number than those by other stakeholder types. The latter often find it difficult to find researchers willing to enter into a partnership with them.

In some cases, ARP approaches adopt a “jump in and learn to swim” attitude conducive to creating adequate conditions for learning by the various partners (see Box 13, “Assistance to local communities and the land-use plan in Senegal,” page 126). Other approaches, on the other hand, look on the initial training of partners as indispensable (see Chapter 14, “Training for action research in partnership: strategies, contents, and modalities,” page 181). We can easily foresee that each of these strategies will lead to the creation of ad hoc mechanisms.

In addition, we often forget that set-ups are social constructs that are not created out of thin air. They rely on what already exists and are part of a history. This aspect must be remembered when designing and implementing them. We often tend to build a mechanism specifically for a project rather than examining what already exists and how it can be modified to arrive at the final, desired set-up.

Functioning as forums where different points of view are explained and contested, these set-ups can produce knowledge in their own right. But they can also be places where simmering conflicts may erupt and even lead to the expulsion of members.

Diversity of governance mechanisms

Because decision making concerns all stakeholders, constructing appropriate governance mechanisms assumes importance. The decision-making process needs to follow principles which institutions or individuals have agreed upon. There is no fixed template and each ARP is free to build governance mechanisms most suited to its stakeholders’ objectives and the project’s context.

Very often, these mechanisms take the form of formal committees or other types of bodies. Operational, decision-making, scientific, and arbitration committees are common examples. Each consists of a different group of members and takes decisions relating to its role (see Chapter 11, the Teria example, page 143). But the mechanisms can also



remain more informal so that there is greater chance of participation from amongst the stakeholders.

Just like other key ARP elements, the governance system too has to be based on rules agreed by all. Moreover, it has to be and remain an effective system and avoid falling into the trap of bureaucratic functioning. Such a governance system can only emerge gradually and collectively.

Some examples of governance mechanisms are presented below.

▮ **Steering committee**

In most ARPs, the stakeholders set up steering committees. Traditionally, a steering committee consists of decision makers who can monitor a project's progress, steer it in the right direction if it strays, and act as an arbitration body. An ARP steering committee consists of representatives of project partners representing on-field stakeholders, researchers, and possibly even funding entities.

The steering committee ensures proper execution of the common work program, decides if modifications are necessary due to changing circumstances or contexts, submits accounts to the partners, validates the results, and mediates conflicts or disagreements. In doing so, it facilitates dialog between the partners and encourages learning and reflexivity.

▮ **Scientific committee**

Some ARP projects also set up a scientific committee. Its role is to ensure a balance between scientific-knowledge production, resolution of problems, and learning. One of its main functions is to help researchers maintain the necessary detachment from their object of study (see Chapter 7, "Reflections on the degree and type of involvement") and to guarantee that the research is scientifically valid. This committee generally consists of recognized scientists in the main disciplines of the ARP project.

▮ **Local committees**

It is often felt necessary to set up local structures for planning activities, implementing them, and evaluating results. Local structures are more in tune with local requirements, often very specific, and they facilitate planning of field work, or defining each participant's tasks, analyzing results, etc. Of course, their effectiveness is closely linked to the preparatory work done in setting them up, the ability of the



stakeholders to manage an interactive process, and the commitment each one makes to do his or her bit.

Even here there are no standard templates. Figure 5 shows a specific example provided by the project “Building innovative fish farming in partnership in Cameroon” (see Figure 5 and Table 1). Three types of governance bodies were established: a steering committee, a scientific committee, and local committees. In this case, the latter were common initiative groups: the “Intensive Fish Farming Group” of Fokoue and Penka Michel in Menoua (and Fishermen and Fish Farmers from Santchou (Pepisa). Table 1 shows the role and composition of each of these bodies.

An ARP’s smooth running requires effective coordination between each governance body eventually put in place. This ensures that conclusions and recommendations of one are not contradicted by another (“More science,” says the scientific committee, “More concrete actions,” say the local committees) and that there are no overlap of skills or jurisdictions. The governance bodies have also to avoid falling into the bureaucratization trap; they have to consciously preserve the flexibility and real-time adaptability that any ARP approach requires.

■ Monitoring and evaluation

Governance set-ups are the place where a reflexive process of monitoring and evaluation of the ARP project’s functioning has to take place to ensure that the project’s strategy remains on course. This process helps identify errors in the orientation of the project and to prescribe remedial action, if necessary.

This monitoring and evaluation process is covered in detail in part 4 as is the assessment of changes effected, of methods mobilized, and of activities undertaken. For the time being though, we will only emphasize the importance of encouraging a culture of self-evaluation by characterizing the ARP set-ups according to the following criteria:

- Their effectiveness, i.e., what are the final differences between the goals originally fixed and the results obtained, and how to explain the differences;
- Their efficiency, i.e., what are the results obtained with respect to the resources mobilized and what is the cost/benefit ratio;
- Their sustainability and their effects, i.e., can the process continue after the first ARP cycle? Have the changes had any significant effect?



The process of change is evaluated by the stakeholders themselves; they define the indicators to measure the results obtained. It would be incongruous to evaluate an ARP process only via external evaluation grids and criteria. This reflexive work on the indicators – qualitative or quantitative – is also a source of learning.

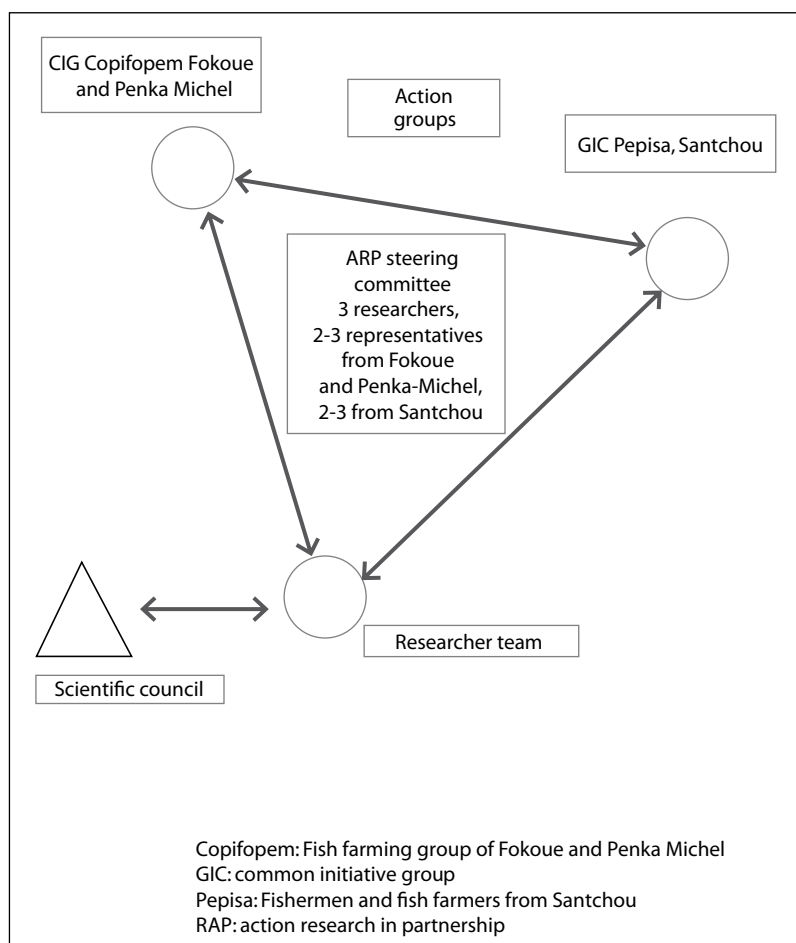


Figure 5. The governance mechanism of the project "Building innovative fish farming in partnership in Cameroon." Source: Dulcire et al., 2008



Table 1. Role and composition of the governance authorities of the project “Building innovative fish farming in partnership in Cameroon”

Body	Role	Composition
Steering committee	<ul style="list-style-type: none"> – Planning activities – Monitoring activities; reorientation, if necessary – Arbitration in case of conflicts – Funding negotiations 	University of Dschang, Cirad, representatives of each of the two common initiative groups
Common initiative group	<ul style="list-style-type: none"> – Interfacing between scientists and farmers – Executive steering of activities at the village level – Monitoring the circulation of information 	Representatives of fishermen and fish farmer groups, technicians
Scientific committee	<ul style="list-style-type: none"> – Monitoring the quality of scientific knowledge produced – Scoping of methods – If necessary, proposals for strategic reorientation 	Cirad, Inra, Universities

Operating rules

Establishing governance mechanisms involves laying down operating rules. The aim of such rules is to facilitate the execution of the ARP project, without rigidifying it. Two types of rules are necessary: those that ensure the smooth functioning of the ARP and those that allow the set-up to evolve over time, for example, rules that define who can enter or exit an ARP or specify procedures for taking important decisions.

But rules have also to be accompanied by incentives for those who abide by them and penalties for those who choose not to: reprimands and moral pressure from the group, temporary or permanent expulsion from the ARP, or possible financial penalties. Whenever rules are formulated, realistic modalities of applying them should also be defined.

Clarifying rules and ensuring transparency in their formulation and application goes a long way in balancing asymmetric relationships that frequently exist between stakeholders. Therefore, different



interpretations of the same rule by different stakeholders should be avoided. Such an effort helps create the conditions for trust to grow and strengthens each participant's commitment to the project (see Chapter 7, "Context and issues," page 97).

Different examples of the construction of rules are presented below. Keep in mind that each ARP has to find its own way to build its own rules; there is no fixed rulebook that can be applied to every case.

■ Work charter

Few projects start by drafting a work charter. The project "Varietal Innovation Platforms on Bananas and Plantain in West and Central Africa" (Innobap) did just that (see Box 11). Innobap is a regional network of exchange platforms for improved identification of farmer needs and the dissemination of new banana and plantain varieties in central and western Africa.

Box 11. An example of a work charter: the Innobap project

B. Lokossou, M. Lama, K. Tomekpe, C. Ngnigone, J. Lançon, H. Hocdé

Research teams working on banana in four French-speaking African countries came together to undertake a project called Innobap (Varietal Innovation Platforms on Bananas and Plantain in West and Central Africa). In a conventional research project, the kick-off workshop focuses, sometimes almost exclusively, on experimental protocols and mechanisms. However, in each of the four countries, the core project initiative takers, consisting of representatives of farmer organizations and one or two researchers, gave the workshop a totally different orientation by focusing on:

- Drawing up specifications for varietal evaluation;
- Formalizing the commitments of the various participants;
- Constituting a steering committee in charge of determining operating rules;
- Defining varietal experimentation set-ups (tests) either on-station or on-farm;

This set of four points, designated "platform," constitutes a formal mechanism of collaboration between users and researchers.

The draft of the charter was hammered out during the workshop based on these four points. At the end of the workshop, the charter was dated and signed by the members of the steering committee.

There is no doubt that launching a project by formalizing commitments is no mean task. And it cannot be automatically assumed that commitments made will eventually be honored.



Experience has shown that the time teams take to define their methods of work and the conditions of applying the charters they have adopted is time well spent. This becomes particularly clear when the project is confronted by typical difficulties – as all projects will be at some time or other – or when an unexpected constraint intervenes, such as a halt of external funding.

▮ Specifications

Since formal work charters and ethical frameworks still remain rarities in ARP projects, partners normally put down their commitments in diverse specifications documents. These specifications apply mainly to the functioning of operational mechanisms: conducting experiments, holding training sessions or structured exchange visits, setting up a supply chain, etc.

The Sorghum agro-biodiversity project in Mali and Burkina Faso which ran from 2002 to 2005 offers an example. Plant breeders, farmers, technicians, and farmer organizations decided to create new varieties of sorghum together. To specify who did what, they drafted the specifications document, shown in Figure 6.

More generally, these specifications become the central document in an ARP approach and the basis of dialog between partners. They help participants recognize and understand each other's expectations and trigger the construction of a joint project. As a participant of an ARP on the development of agriculture-livestock relationships in Burkina Faso commented, "It's a meaningful document; anyone can refer to it at any time. It's a moral contract drawn up with everyone's inputs; it was discussed at different levels, first within the executive office of the village coordination committee, then in the village itself with the person who had volunteered to conduct the test. Everyone got an opportunity to be heard." (Vall *et al.*, 2007)

▮ Commitments and formalization

The concept of commitments is at the heart of ARP mechanisms. The formalization of these commitments promotes the stakeholders' potential for autonomy and builds their capacities to co-construct innovations and act like true partners. Formalization is much more than a mere advance, it can be considered a keystone of an ARP approach because it encourages the establishment of rules that manage relationships between members of a collective.



Participatory selection of sorghum Specifications agreed upon by farmers, producer organizations, researchers, and technicians		
Producer tasks Identification of an isolated plot Setting up the experiment Crop monitoring identification of sterile male plants Harvesting of sterile male plants Evaluation and sorting of sterile male plants Selection of fertile plants for the development of varieties (pure lines)	Researchers tasks Definition and explanation of activities Drawing up of protocols (experiments and evaluation) Confirming the choice of the plot Support and verification of the crop monitoring (visits + training) Training of producers and sorghum field- advisors in plant-population management Coordinating the process of selecting fertile plants Analysis of results and stockpiling of seed stock for the next generation	Farmer organization/ sorghum field-advisor tasks Providing communication channels between producers and researchers Organizing planning and back-reporting workshops Selecting producers Confirming the choice of the plot Participating in crop monitoring Providing support for identification of sterile male plants Organizing, facilitating and documenting the evaluation and classification of sterile male plants Facilitating the selection of fertile plants

Figure 6. The specifications document of the Sorghum agro-biodiversity project in Mali and Burkina Faso which ran from 2002 to 2005. Source: Vom Brocke *et al.*, 2008

What is meant by formalize in practical terms? What is a suitable level of codification or formalization? Depending on the context, and cultural and social environment, formalization can mean putting things down in writing. This is what institutions, researchers, and technicians expect and aim at. However, there are social groups, especially in rural societies in the South, where written documents have limited reach. Then written documents will limit us to the world of the technician and exclude the locals.

Therefore ARP practitioners have to closely verify what formalization means for each stakeholder, irrespective of his or her socio-professional category, and ensure that they do not confuse the letter



and the spirit. The key questions that the teams concerned will need to answer are:

- What specific commitments are we trying to formalize?
- What do we expect from formalization in terms of results, trust, and capacities to overcome difficulties?
- What consequences (foreseen and unforeseen) can they induce?
- When should formalization take place (at the start, during the project)?
- What form should it take (written document, verbal commitment before persons who are recognized locally for their moral authority, etc.)?
- How to make it public (formal ceremony, informal social occasion, website, etc.)?

Summary

The success of governance and operational mechanisms implemented as part of an ARP approach depends on the stakeholders' willingness and ability to breathe life into them and to make them integral parts of their partnership. Nevertheless, it must be acknowledged that it is not always easy to apply a set of principles, using what already exist as a basis, to build mechanisms that take the context and the problems identified by the stakeholders into account. It is more an art than a science, and requires ingenuity and imagination on part of the stakeholders concerned.

Finally, it is clear that these mechanisms, their construction, their implementation, and the analysis of their performance provide learning opportunities for all ARP stakeholders. We will examine this idea in greater detail in Part 4.



9. Operational mechanisms, methods and tools

G. Faure and H. Hocdé

This chapter looks at the operational decisions, ones that are tactical in nature – as opposed to the strategic. They help define each activity in detail, specify execution modalities, and determine indicators for evaluating results.

No recipes, only an approach

The purpose of the action research in partnership project determines the nature of the mechanisms and the planning of the activities that will form part of the project. Some conventional participatory research approaches and methods advocate a standard way of designing these mechanisms and conducting these activities. This is not the case here.

The ARP is not a method, rather it is an approach, i.e., a set of principles to implement. These principles require the creation or adaptation of specific operational tools, methods, and mechanisms – which have to be specified and shaped each time with stakeholders at their core and for responding to the problems identified with them.

For example, if the goal is the design of new agricultural techniques, the operational mechanisms will typically include a combination of on-field experiments, demonstrations, farmer exchange meetings, training sessions, etc.

If the goal is market insertion, the operational mechanisms will instead feature studies on value addition, meetings between supply-chain actors, modeling of flows between them, etc.

And, finally, if the objective is rural land management, the mechanisms may include such activities as the co-creation of maps of resources and their use, simulations of possible scenarios with role-playing games, negotiations with local communities, etc.



Some definitions

▮ What is a tool?

The term “tool” is used to designate a technical object that helps do some work. This object can be tangible, such as a blackboard or a scale, or intangible, such as a cross-tabulation table, a list of tasks, or participatory mapping. A tool can be very simple or very complicated. It can range from, for example, a calculation of ratios for a small number of variables (for example, a yield or gross margin per hectare or per day of work) to complex mathematical modeling for simulating decision making by some actors.

A tool in itself is of no particular value unless it is adapted to a particular situation. It acquires meaning only when it relates to a problem that has to be solved and to the use the stakeholders put it to. Thus, the same tool can be used in different ways depending on the objectives. For example, participatory mapping can be used in two contrasting ways to plan infrastructure spending: the first in conjunction with the populations concerned, the second imposed from above by technicians.

In an ARP, the basis for the tool’s creation or its use should be discussed. For example, what is meant by gross profit for a farmer’s plot? In this way, the tool can become a powerful adjunct to reflection and help stakeholders structure the way they perceive their situation (Moison, 1997).

▮ How to use a tool?

Specifying the method of using a tool or a set of tools is therefore necessary. To do this, all the tasks that need to be accomplished using the tool should be clearly defined as should the steps to follow for correct use of the tool in pursuit of objectives decided upon. In particular, who will use the tool(s) and how it/they will be used need to be explained.

The method needs to be adapted to each different situation, by involving the stakeholders in its creation or, at the very least, in its collective validation. When the method includes the use of several tools, we often use the concept of “toolbox” which allows users to choose tools most suitable for the task(s) at hand.

▮ Context of using a tool

Methods and tools acquire meaning by being part of operational set-ups, for example an agricultural or animal experimentation set-up, a set-up for monitoring natural resources, or a set-up for sharing



experiences between stakeholders. These operational set-ups require operational decisions to be made, which are debated and negotiated by the stakeholders: How to organize a trial? Who decides where to conduct it, what control treatments to use, how will it be managed, what measurements to take? How to arrange an exchange of experiences? Should it be through a field visit or study tour? How to structure a discussion of research findings so that progress is made in resolving the problem?

Understanding tools, methods, and operational mechanisms in context

In this section, we use two contrasting examples of tool use by stakeholders to show how methods of using the tools were developed and how operational set-ups were established.

In the first example, the tools may appear simple. In the second, they are much more complex. But in both cases, similar questions arise on the skills necessary for the use of the tools by the stakeholders, researchers included.

■ A farmer experiment in Guatemala

In this example, farmer-experimenters in Guatemala came together to design and implement a series of tests on their plots. They hoped to resolve an agricultural problem they had clearly identified at the start (Box 12).

This example seems, at first sight, disconcertingly simple. Is there something new? There are no sophisticated tools, no GIS, no isotopic markers, or anything of that sort.

In spite of its brevity, the contents of Box 12 does show that conventional tools were used in the project. They were those that the farmers, technicians, and researchers found in their immediate environment. To conduct their agronomic trials, all they needed were a 10-meter measuring tape, a scale, some inputs (seeds of various sorghum varieties, of peanuts, and of jack bean, some urea), some sheets of paper, technical documentation, indelible marker pens, a flipchart with its sheets of paper, and daily allowances for visits (food and travelling expenses).

The technician used basic tools to facilitate the meetings. The other tools were simple enough to be used by the farmers, in particular: a plot for conducting the test, a notebook to make observations in, data



Box 12. The “Superación” farmer-experimenter local committee

I. Cifuentes, D. Molineros, H. Hocdé

In 1994, a core of farmer-experimenters (FE) decided to form, with the help of the local extension services, a “farmer researcher” committee which they called “Superación” (“doing better”). There were five members, of whom two were illiterate. The surface areas of their farms ranged from 1 to 2 ha. This committee hired a half-hectare flat plot in the center of their village to conduct trials even though they all lived and farmed their own lands in the nearby hills. This was their “farmer experimentation center” (FEC).

Their diagnosis on the functioning of their village community highlighted the importance of increasing the production of their primary food crop (sorghum) in pursuit of added food security for local families. On this basis, the committee decided on a certain number of trials they thought they would be able to conduct. Each member assumed responsibility for a particular issue:

- Stand density of two sorghum varieties;
- Determination of sorghum cutting height (by machete) at the end of the first rainy season to ensure good regrowth for the second season and a good overall yield;
- Comparison of urea doses applied to sorghum regrowth;
- Combining jack bean and sorghum during the first rainy season to ensure good sorghum regrowth during the second season (test over three years);
- Comparison of five peanut varieties, a cash crop, because it is necessary to also bring in a minimum of income.

In the FEC, each FE was thus responsible for conducting his own trial. Some tasks could be undertaken alone, others required the help of the other four members. In addition, each FE looked for three or four collaborators from near his farm in the hills to conduct the same type of experiment. Their plots functioned as replications.

The field advisor from the local extension services played a major role in assisting the group by stimulating the farmers’ reflections. In addition, he involved his *compadre* (friend-colleague) from the research station to support the FEC. The farmers lent him a plot on which he conducted a trial with a more sophisticated protocol on the issue of fertilization.

The overall work undertaken by the local agricultural research committee involved a number of stages. In chronological order, they were: (1) planning, (2) defining trial protocols, (3) selecting site and plots, (4) planting the trials, (5) conducting the trials, (6) organizing exchange visits between committee members and between committees of other communities, (7) organizing visits of the support team consisting of researchers and field advisors (8) collecting data, (9) promoting and disseminating activities directed at the community, (10) harvesting test crops, (11) analyzing data, (12) interpreting results, (13) reporting back the findings to the committee and to the community, (14) planning of the next cycle.



sheets for analyzing individual results, and tables to compare results between farmers. We must note that the concept of “simple” is relative, especially for a farmer who has to feed his or her family off a small plot of land and who is just learning to read.

Let us take the example of the experimental plot of a given trial. Juan was in charge of this plot in the farmer experimentation center. He explained to Alberto, Antonio, and Gerardo, who had volunteered to conduct the same test on their farms in the hills, the size of the plot he will plant, its location, the crop-management techniques he will use, data he will collect, etc. In short, the protocol.

To reach this result, all four had to apply their minds as did their technician to understanding the why and how of what they wanted to do. And, in this way, they constructed the “trial” tool and decided how to use it. They invented, in other words, a type of operational set-up (farmers concerned, plots used, objects compared, modalities of managing the trials, etc.).

The farmers were responsible for the smooth running of the process, individually or collectively, not the researchers or field advisors. Their operational mechanism was the farmer experimentation center and the trial plots in the hills. The initial reaction of some agronomic researchers when they saw the field of the farmer experimentation center was blunt: “The location of your tests is not at all representative of the real conditions of your village.” To this the farmers responded, “Our first goal is make our work known and to involve others. That is why we first chose a well-trafficked location, even if conditions there differ from those at our farms. We will then involve our neighbors in our farms.” Communication and agronomy are the two pillars of their experimentation center.

In such an approach, researchers and technicians participate in farmers’ activities, not the other way around. The approach promotes learning and development of new skills: observation, data analysis and comparison, analysis of biological processes, justification and explanation of results and decisions to others, planning of activities, and organizing collectively.

The farmers slowly change their perception of their environment. They grow more autonomous and self-sufficient and feel more capable, less dependent on external support. And, above all, they feel they are in a better position to express requirements and formulate proposals if they do require external assistance.



Land management in Senegal

The example of the land-use plan in Senegal (Box 13) shows how stakeholders came together for improved management of land and natural resources and the tools they used to do so.

Box 13. Assistance to local communities and the land-use plan in Senegal

P. d'Aquino

The Senegal River valley is a strategic space for animal husbandry, agriculture, and fishing. Nevertheless, in the last three decades the valley has become gradually covered by irrigated-agriculture schemes. This has negatively impacted animal husbandry and has led to social tensions.

Policies of decentralization implemented in the 1990s have transferred some powers for managing land to local communities. The decentralization has, however, excluded the hydro-agricultural schemes from the process; they are still managed without any great coordination by the State. This situation has led to frequent complaints and several conflicts.

That is why, in 1997, a development-research team put in place a pilot project to test, in a real-world situation, a program to empower local communities to manage their own space. This program was destined to reconcile the development of different productive activities and the preservation of natural resources.

The issues were clearly defined: strengthen the effective powers of local communities, consisting of elected rural personnel, to cooperatively manage the space. This meant:

- Creating the necessary space for communities to act without institutional interventions;
- Creating and transferring suitable technical capabilities;
- Helping learn in action, without supervision, for a sustainable acquisition of new skills;

A three-stage supporting approach was retained:

- A stage for raising awareness of local institutions, lasting a minimum of six months, so that they agree to let local communities take decisions and undertake actions. This also meant the new roles of everyone involved (local administration, technical services, traditional and tribal leaders) were valorized and supported in the new arrangement;
- A stage, lasting about a year, for local communities to construct their own geographic information system. This stage was to culminate in the creation of a tool suitable for their needs and perceptions, and included phases for learning its use and discussions on its limitations;
- A discovery stage of about six months by the communities of the complexity of territorial management. As and when necessary, the development-research team would provide fresh assistance for collective analysis, such as role playing and territorial modeling, and also new information, such as on available intensification techniques.



...
Thus in three years, the project led to independent actions by local communities, with the drawing up of a land-use plan, grassland planning, and the resolution of conflicts with a national park. In addition, it led to a method which the technical services decided to scale up by themselves to cover the entire valley (45,000 km²), without any assistance from the initial team or any external project and without external funding.

This example shows that rural stakeholders, as part of local communities, can construct, use, and master complex tools such as a geographic information system. They do so by using their knowledge of the environment (resources, spaces, uses, etc.) and also scientific knowhow, for example, on soils and vegetation. Maps then become a basis for mediation processes on the management of space, for pinpointing difficulties, and for identifying possible actions – such as new rules or new arrangements.

The local communities need to acquire new technical skills to master the geographic information system and to use its results, the maps. They have to learn what can be expected from such a system and become capable of defining mappable areas and zones that will be meaningful to them, of interpreting a map, and of taking land-use decisions based on the map.

Training is thus an essential part of the project. As this process of learning is supposed to take place while undertaking actions (“learning while doing”), time will be required to let stakeholders participate in the design of the tools, master their use, and employ them in their activities.

The training itself used a set of tools. For example, role playing (see Box 14) involved rural stakeholders living out a simulated history of the management of their community’s resources.

We observe that, just like in the first example of Guatemalan farmer experimentation, it is not the tools mobilized as such (geographic information system, maps, and role playing) that are central to the ARP. It is the approach on which everything depends; it has to be clearly explained and designed to achieve the goals fixed by the stakeholders.



Box 14. Role playing for managing village lands

Role playing recreates dialog between different types of stakeholders, each of whom is represented by a person. Dice, paper, and pencils form the core of what is required, complemented by a good dose of imagination.

Role playing simulates different land-use scenarios. It helps participants understand the situation of their village, analyze the various stakeholders' strategies, and grasp the impact of different choices in managing land and resources.

Stakeholders learn collectively by creating or changing their representations of their environment. They discover that they have room for maneuver and can shape their future.

Lessons learnt from the tools used

■ Diversity and complexity of tools

A wide range of diverse tools can be mobilized in an ARP, ranging from the simplest to the most complicated. Which ones to use depends directly on the objectives sought: conducting a diagnosis, sharing and communicating, evaluating and directing activities, managing conflicts, and building up skills. And, of course, their choice depends on the specific problems that need to be solved. We would not need a geographic information system to fine-tune sorghum-based cropping systems, for example.

The Senegalese example, above, shows that stakeholders can understand and work with complex tools. This illustrates one of the fundamental principles of, and challenges for, ARP: empowerment, i.e., helping stakeholders really master a tool so that they can use it independently without requiring help from the research community.

■ Generic or specific tools?

Are the mobilized tools specific to the ARP? Experience clearly shows that, generally, no tool is really unique. After all, an agronomic trial conducted by a farmer, geographic information systems, or role playing were not invented in an ARP framework.

What changes is the way of using the tools, the method. Their use has to be put in perspective with respect to the goals aimed for. Defining modalities for tool use requires an agreement between all concerned ARP stakeholders and it often makes them the center of discussion in ARP group discussions and stimulates stakeholder interactions.



■ Stakeholder participation in tool construction and use

In an ARP, all stakeholders participate to some extent in building and adapting tools. The Guatemalan example shows how the farmers planned their trials, what they wanted to compare (varieties, techniques), and what observations they deemed important.

In the Senegalese example, the rural inhabitants decided which environmental and geographical entities they wanted to represent on the maps. They proposed a format for their geographic information system so that its outputs, such as maps and diagrams, helped answer the questions that concerned them.

Building and using such tools therefore requires stakeholders to define collectively the questions that each tool should help answer. Data collection and/or formatting of existing information into a particular format may also be required. Finally, stakeholders need to collectively analyze and share results. However, this does not preclude some tasks from being delegated to specialists or service providers when, for example, specific skills are called for or some resources are scarce at the level of the stakeholder involved (time, money).

Thus, for example, in an approach for participatory plant breeding, the involvement of geneticists specialized in molecular marking is clearly justified: they are asked to verify, in the varieties created, the presence and the stability of genes that meet the farmers' criteria.

■ The researcher's role

The team of researchers and technicians plays a role at various levels. It participates in the building of the stakeholder collective of researchers, technicians, and others. It is an interface between the scientific world and the non-scientific world, including those of the producers and the technicians, and provides scientific knowledge to them. And, this team participates in the construction of the tools used, whether simple or complex.

In the Guatemalan example, the involvement of the thematic researcher took second place to that of the technician. In reality, the former's contribution was upstream of the project itself, during the preliminary phase of consultation and discussions between farmers, communities, researchers, and technicians on the activities to be conducted.

In the Senegalese example, because of the type of tools used, the researchers' contribution was greater. They were deeply involved in the adaptation and fine-tuning of the geographic information system.



They also contributed to its ergonomic aspects, not only in the ease of use of the tool itself but also in its insertion into individual or organizational workflows.

The researcher can also take an interest in the stakeholders' use of the tool. Its appropriation, rejection, modification, use for purposes other than intended, changes in stakeholder relationships brought about by its use can reveal much about their strategies.

▮ Learning while doing

Every experience shows that ARP stakeholders learn to use and master a wide range of tools which, until then, they used little or never. The learning aspect – formal training is part of it – is a fundamental driving force in an ARP. It encompasses a diverse range of practical modalities but all have a common aspect: learning always takes place while doing and is based on the critical analysis of practices and each concerned stakeholder's specific circumstances.

▮ Multiple functions

In an ARP, tools have multiple functions. On the one hand, they have two traditional functions: first, producing new knowledge, by facilitating data management, comparison of results, and restructuring of knowledge. The second is to resolve problems by helping make a diagnosis, assisting the decision-making process, implementing and monitoring actions, and evaluating the obtained results.

In addition, tools have functions and dimensions specific to an ARP. They are thus intermediation objects which help organize exchanges between shareholders, compare viewpoints, and lead to the adoption of common positions. They also play a fundamental role in the learning processes, not only of individuals but also of collectives.

ARP initiative takers do invest part of their energy in all these aspects and employ their knowhow and expertise to build, adapt, and implement tools that are often more complex than may seem at first glance.

Selecting, using, and adapting tools

Rules can be derived from the preceding discussions for selecting, using, and adapting tools for building stakeholder capacities to undertake relevant activities and produce knowledge. These rules are based on the following six criteria: suitability, adaptability to requirements, ability to help impart autonomy to stakeholders, ability to produce



quick results, ease of use by the stakeholders, and their ability to evolve.

A tool's suitability is its ability to respond to questions that confront stakeholders. Even though such an approach ensures they appropriate the corresponding discussions, the creation of tools that may be needed can require experienced persons with specialized skills.

Contrary to what too many experiences illustrate, it is the tools that have to adapt to the stakeholders' requirements, rather than vice-versa. Instead of adopting readymade and easily available tools, it is preferable to design specific new tools or adapt existing ones with the stakeholders' participation so that the tools are specific to their requirements.

For stakeholders to acquire autonomy, they have to have appropriate tools and the ability to reason. The participation of the stakeholders in building tools contributes towards greater autonomy. Adopting work routines or habits that require the use of certain tools to acquire skills (routine of recording and logging decisions and passing them on, or the routine of analyzing results obtained by the tool used, for example) can also lead to the appropriation of tools.

Stakeholders involved in an ARP are often eager to obtain as fast as possible the first concrete results, even partial solutions to the original problem that led to the creation of the ARP collective. If this impatience has to be satisfied, tools must be chosen that bring together, within short durations, phases of accumulating and analyzing information, and of implementing actions and reflecting on their implications for the stakeholders. Nevertheless, to avoid the search for quick results from negatively impacting the other aspects of the ARP, a balance has to be found between short- and medium-term tools.

Using tools that are within the reach of the different ARP stakeholders is one of the necessary conditions for an effective participation and appropriation. However, if the use of complex tools becomes unavoidable (see Chapter 9, "Lessons learnt from the tools used," page 121), it is imperative to explain the results obtained clearly, the way they were obtained, and their limitations to the stakeholders who may have little knowledge of them.

Two reasons justify the evolvability criterion of the tools chosen in an ARP project. Firstly, the skills of the partners grow rapidly, as is demonstrated by the ability of some farmers to quickly learn to use PowerPoint software or browse the Internet. Such an improvement in skills allows tools from a progressively wider range to be selected,



thus leading to the use of ever more effective tools. Secondly, the tools may need to change over time to take into account the results obtained in earlier stages or for taking changes in the ARP environment into consideration.



10. Managing collectives

H. Hocdé and G. Faure

Management and communications remain essential functions in an ARP approach, irrespective of the number of available tools, the range of set-ups cooperatively developed, and the diversity of the concerned collectives.

This observation is true for all ARP stages, from the exploratory phase to the implementation phase to the disengagement phase (see Part 2). Relationships between ARP stakeholders can be managed by what some would consider routine activities: meetings, interviews, planning, analyses, and back reporting.

But holding meetings with heterogeneous participants, interviews with an individual or group, participatory planning, and presenting results all require specific management and communications skills by the ARP initiative takers.

Managing communications

The first point is to become aware of the large number of instances of non- or inadequate communications during research experiences involving diverse stakeholders, and of their unfortunate consequences. The telling anecdote in Box 15 illustrates this common difficulty in communicating. More importantly, it draws attention to the possible risks we run when we do not ensure mutual understanding.

Optimized functioning of an ARP collective is conditional upon a good and effective flow of information. Communication requires patience and a collective ability to listen; it consumes time – but it is time well spent. And yet, experience shows that communication skills are not the strong point of the majority of ARP researchers and practitioners.

Effective communications and information flow have four specific goals:

- To know and understand each other, and to get recognition from the others. The stakeholders thus learn to understand their differences, exchange ideas, create new knowledge and skills, and draw up proposals. Meaningful communications and a smooth flow of information helps valorize each participant in the eyes of the others and thus builds



Box 15. Communications surprise!

M. Vaksman

One day in 1999, a sorghum breeder participated in a survey of local varieties in Mali. At day's end, he was talking with the farmer who participated in the survey and who had invited him home. The researcher mentioned something that amazed him, a strange contradiction: farmers were growing tall sorghum with small panicles, whereas research wanted to create a short sorghum with large panicles. The farmer responded by telling him that he did indeed have this type of sorghum, and invited the breeder to have a look at this his grain store and – and to help himself to it.

But it is the subsequent statement he made that is truly revelatory: “The problem is that you researchers do not try to explain to us what you want so it becomes difficult for us to work with you.” The researcher never forgot this complaint. It fundamentally changed his research perspective: it strengthened his resolve to combine selection criteria, some originating with farmers and others with researchers. Until this episode, the researcher considered it impossible to combine criteria in this way.

As shown by this example, sophisticated communications tools are not necessarily required, it can be just a matter of simple means to verify that each one understands the other, that all are aware of the common goal. “*Afamouna* (it's understood),” say some Malian facilitators.

trust (see Chapter 7, “Introducing action research rooted in partnership: the Unai project in Brazil,” page 97);

- To keep partners and stakeholders updated on the activities in progress. It is obvious that external partners need to be kept informed but it is also frequently observed that many stakeholders of an ARP project have only a partial picture of the overall project. Keeping them updated as well helps limit misunderstandings and avoid confusion and even disinformation. Information transparency is therefore a key partnership requirement;

- To facilitate the execution and monitoring of the planned tasks. Once again, this may seem self-evident and yet, shortcomings here are very often due to a lack of sufficient will to ensure a smooth flow of information rather than to any lack of communications tools or difficulties in using them. When ARP initiative takers expressly become aware of this issue, they quite easily find modalities of application for information sharing;

- To shed light on decision making. To be able to take strategic or operational decisions, stakeholders need to possess the basic information on the context, possible choices, room for maneuver, consequences of various decisions, etc.



We distinguish between two communication levels: communications between individuals belonging to different worlds and communications between members of the same world (the world of researchers, the world of technicians, the world of the farmers). Each of these levels may require specific contents or type of communications.

In most cases, the conventional communications tools can be employed successfully: regular meetings of committees, workgroups, etc.; organization of specific events such as back-reporting of results or a lecture-discussion on a particular topic; sending out of a regular thematic or general newsletter;; or even the use of traditional media, especially radio.

Managers and facilitators of ARP projects, should organize an information-flow system that, at the very minimum, should ensure distribution and archiving:

- Of meeting and workshop reports or details of decisions taken;
- Of validated work plans;
- Of reports and articles produced within the framework of the ARP;
- Of technical, educational, and other relevant documents.

It is also possible to rely upon modern techniques and tools such as:

- Digital video to present noteworthy aspects of the ARP, such as results and testimonials;
- The Internet for wider distribution of action-research findings, facilitating access to useful information, getting in touch with other stakeholders, etc.;
- An intranet to share knowledge and techniques, share work schedules, participate in discussion forums, receive and send alert messages, keep tabs on what is happening in the project, link to other resources;
- Electronic forums such as Wiki sites managed and built by the stakeholders.

Leadership and mediation functions

An ARP project's initiators, whether researchers or non-researchers, can make use of specific tools to facilitate and stimulate stakeholder interactions. This helps puts into action the ARP's key principles, among which: reducing asymmetries, helping the most underprivileged to speak up, delegating responsibilities between stakeholders, and encouraging the taking of initiatives.



■ Meetings

The facilitators of an ARP project's have to lead and manage work-groups which may consist of stakeholders from different backgrounds, with different professional goals and perspectives. They have to organize and manage different types of meetings and workshops (awareness creation, informational, presentation, closing events, etc.). For such meetings to be successful, it is necessary to invest time, energy, and money for each of the three stages: before, during, and after the event.

The preparation of the event consists of:

- Defining goals and identifying participants;
- Organizing the logistics;
- Clarifying the process (or the dynamics) that will be proposed, consistent with the project goals and depending on the existing and known relationships between would-be participants and the pool of skills that will be assembled.

During the event, the facilitators have to:

- Welcome and introduce participants;
- Present progress achieved so far and the event's agenda;
- Present results, form discussion groups, report back in plenary session;
- Sum up the discussions and the decisions taken, and list unresolved points;
- Assess the meeting and thank participants.

After the event, it is important to:

- Evaluate the outcome;
- Follow up on decisions taken.

For effective management of a meeting, i.e., so that each individual feels like a real participant, use of visual techniques is often desirable. These techniques help encourage wider participation and minimize misunderstandings. In addition, problems of translation which can arise in purely verbal communications are avoided.

Visual techniques can be applied to each ARP stage (initial diagnosis, planning, presentation of findings, etc.), both with homogeneous and heterogeneous groups. One of the most common ones is based on the use of index cards (Salas *et al.*, 1993), a technique that is especially useful in brainstorming sessions and when participation by all is deemed necessary.



To generate new ideas in a group, a facilitator can ask each participant to note down one or two ideas in the form of a short sentence on an index card. The cards are then pinned to a board, grouped by theme, with the possible help of the participants. This imparts a structure to the brainstorming. The facilitator can also summarize the main ideas that the participants put down on the cards.

These cards can be moved around during the workshop depending on the way the debate progresses. In this way, the participants can “see” their own thoughts and views. By preserving the various boards on the wall, the group gets to see the evolution of their opinion, beliefs, analyses, and decisions.

Several variants of this technique exist. Cards of different colors can be used for an easier classification by topic or by type of stakeholder. They can be anonymous or not, depending on the issue at hand.

Note that experience is required for mastering the use of these tools. In addition to learning while doing, specific training sessions may be necessary on some occasions. It is recommended that those new to this field take advantage of them.

A meeting need not be sterile and lifeless; it can be part of an educational strategy, as shown in Box 16.

Box 16. Organizing the reporting back of results

Let us imagine that, in the context of an ARP project, the time has come to present findings and results obtained over the past months to various project partners and allies, for example, the findings of an experimentation cycle on new cropping techniques conducted with the farmers. The facilitator responsible for this presentation has to decide how to conduct the presentation.

Should she handle the different points, i.e., the problem-set, issues, questions, material and methods, results, discussions, and conclusions, in a fixed order irrespective of the audience? Or should she broach them in a different order depending on the participants, by assigning greater weight and importance to those points that will interest or concern the various participants?

For example, the facilitator may choose to start with the expectations and concerns of the participants, and then select those specific messages that will let her enter their world and get their attention. She can also choose not to put herself in their shoes and present topics in the way she deems best, letting the participants relate to her approach. Another facilitator might opt to combine both approaches – the structured and the targeted – on the spot.



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The meeting will be more effective if the facilitator uses written and visual media such as photos, graphics, objects, posters, models, and drawings, in spite of their cost and the time it will take to make them. This can be particularly useful in situations where use of the local language is required or when illiteracy levels are high.

The basic principle always remains the same when choosing visual or other aids: What will make sense for the participating stakeholders? What will speak to them? What will hold their interest? What will help valorize the communications systems and methods that the stakeholders use in front of other stakeholders, such as researchers (stories, radio, tom-tom, sociodrama)? Here too, the ARP initiators have an obligation to rely on proven experience from experts in the field.

II Exchanges between stakeholders

Exchanges between stakeholders (for example, reciprocal visits between farmers and technicians from different villages) are an effective way of transmitting information. They can also be learning experiences when they are designed properly as part of an overall strategy.

Here too, there are many ways of organizing such exchanges. Technicians or researchers can take charge of them or they can strive to make farmers take their share of responsibility. Visits can involve only farmers or become occasions to further relationships between farmers, researchers, and technicians.

As an example, let us take the case of structured visits between farmer-experimenters such as mentioned in the Guatemalan example (see Box 12 “The “Superación” farmer-experimenter local committee,” page 124). Farmers exhibited great interest in this modality of learning and of sharing information, much in the same way that researchers do for conferences and seminars.

Exchanges between farmer-experimenters can be conducted at several levels: within a locality, a region, a country, or across several countries. They can be of various durations, from day-visits to those lasting up to a week. They can take several forms: small- or large-group visits; visits limited to test plots or also focusing on the farms where the tests are being conducted; exchanges conducted indoors, around animal herds, or around a particular plot; or exchanges between project participants or widened to the farmers’ families with possible accommodation of visitors for a few nights in the homes of the host families.



Even though any exchange is usually beneficial, it must be kept in mind that organizing it will have significant costs for the ARP collective in terms of time, money, resources, and effort. So it is incumbent upon the organizers to optimize the benefits derived from such encounters. It is worth keeping some rules and guidelines in mind towards this end, as illustrated in Box 17.

Box 17. Preparing for a farmers' visit

B. Miranda Abaunza, H. Hocdé

Organizing a meeting requires a three-stage preparation: before, during, and after. Each of these stages has its own goals and rules and should be prepared with care, in line with the following guidelines:

Before the visit

Who will participate in the meeting? How to choose participants (or how do they choose themselves)? What do we hope to achieve with this visit? Can visitors be given some information in advance about the location and context of the meeting? How should the meeting be organized? What skills or knowhow can the visitors bring to their hosts? What will the visitors be able to do back at their farms with the information they will acquire during the visit?

During the visit

A successful visit consists of three parts. The first is for seeing, listening, sensing, and conversing. The second is for systemizing what has been observed, seen, and spoken about. Finally, the third is for debating, discussing, and other interactions between hosts and visitors.

The first part is the longest. By far, it is the part during which the participants are most lively and show greatest interest. It is more difficult to set aside some time at the end of the corresponding period(s) for the visitors to analyze and to systemize, amongst themselves, their observations, doubts, and even the recommendations they can make to their hosts. Eventually, the visitors present back to the hosts these recommendations and comments, usually leading to a productive debate between the two sides. This part of the meeting is the most difficult to hold; time is usually running out and participants are tired.

Interaction between visitors and hosts is usually most animated and productive if there is a cultural aspect to the visit in addition to the purely technical ones (songs, music, poetry, story telling, festivals, local cuisine, regional history, etc.).

After the visit

On their return, the visitors may talk about this visit to their families and neighbors. Without an explicit strategy or plan for conveying what was learnt during the visit, things generally end there.

...



...
With some forethought, however, the visitors can arrange reporting back sessions at various levels, for example, in the village or to groups. And, of course, they can use their normal communications networks to distribute information gained during their visit. In an ideal case, they will be able to incorporate some day some results and lessons learnt during the visit . In general, the visits have a cascading impact: first a change takes place in the visiting farmers' thinking. They are emboldened and more confident about their abilities, feel less isolated, and are more willing to commit themselves to the collective action. As a result, they increase their involvement within their groups, within the ARP project, or within activities of public institutions. This acts as a springboard for them to invest more in the ARP project and in other transformational projects.

Monitoring and understanding action research in partnership as it takes place

ARP practitioners may want to study the ARP process as it takes place for at least two reasons: for a better understanding of the dynamics at work and for helping manage and steer the ARP. Several tools are available to do so and they can be made an integral part of the monitoring and evaluation process (see Part 4).

Because researchers have the special role in an ARP of generating knowledge (see Chapter 7, "Reflections on the degree and type of involvement," page 97), it will be useful to plan discussions between researchers during the monitoring and evaluation process. These discussions should be in addition to, not in place of, discussions already planned and involving all stakeholders in the ARP's governance mechanisms.

Thus, at each significant event, such as a committee meeting, workshop, or presentation of findings, it may be very productive to analyze what transpired during the event. This will allow researchers to interpret stakeholder reactions, understand reasons for any bottlenecks, and anticipate possible consequences of a decision. The formalization of this reflexive process will greatly help in taking decisions pertaining to activities and in building a collective analysis of the dynamics at work.

A project log book is a good way of recording information about the functioning of the ARP, stakeholder reactions and behavior, salient facts in the project's life, and meetings and basic information about them (date, duration, participants, topics, results, decisions). Maintained by



researchers, sometimes with help from other stakeholders, a log book helps analyze, in real time, decisions and choices made at every ARP stage. It also helps retrospective analyses during evaluation phases. In addition, it is a great help for drafting project reports.

Summary

Without pretending to be exhaustive, this chapter has presented some examples of ARP governance and operational mechanisms. Some tools for facilitating interactions, encouraging contract agreements between stakeholders, assisting the decision-making process, facilitating the undertaking of activities, managing and leading, communicating, and mediating have also been presented.

This chapter has drawn attention to the vital role of communication, the flow of information, and the facilitation of the collective. At the risk of repeating ourselves, it also highlighted the crucial need, when designing mechanisms and tools, to include a reflexive analysis of their performance.

No standard blueprints, no recipes, and no single way of proceeding: this leitmotif is not meant to discourage those wishing to undertake an ARP, but to encourage them to use their ingenuity in proceeding forward and to remind them that all has not been invented yet.

Finally, everything is a source of learning, as we have seen throughout this chapter. But it is the formalization of this learning that leads to a qualitative leap, valorizes the lessons learnt, and helps achieve the aims of a true ARP.



11. Contractualization of relations in the Teria project in Burkina Faso

É. Vall and I. Bayala

The example of the Teria project shows how a collegial decision between farmers, technicians, and researchers, and a contractualization of relationships conditioned and modified the way an experiment that brought together various stakeholders within an ARP project was conducted. “Teria” signifies friendship in Dioula and was the name chosen for the project by the participants, describing the relationship between farmers and livestock owners.

Context and issues

In western Burkina Faso, there are conflicting strategies of expanding agricultural lands (farmers), on the one hand, and having larger animal herds (breeders), on the other. These separate strategies still largely prevail over an integrated use of land for both types of activities in a finite space that is fast reaching saturation point. The result is conflicts on the use of land, a deterioration of agro-sylvopastoral resources, and a leveling off or fall in crop and herd productivities. Innovative agro-pastoral activities such as bovine fattening in the dry season or dairy production are too slow to take off in spite of the existence of local urban or sub-regional markets that could support these activities. In such a context, how can research help change the status quo?

The Teria project experimented with an ARP approach from 2005 to 2008 in two villages in western Burkina Faso, Koubia and Kourouma. Its goal was to help scientists (from Cirad, Cirdes, and Inera) and local stakeholders (farmers, breeders, and technicians) engage in dialog and work together to design and test innovative methods for boosting crop-livestock integration, to reconcile economic development and sustainable management of ecosystems, and to design a future inclusive of all.

Three committees formed the ARP’s governance mechanism: a steering committee, a scientific committee, and a village coordination committee. Figure 7 and Table 2 show the relationships between these committees and their respective roles.

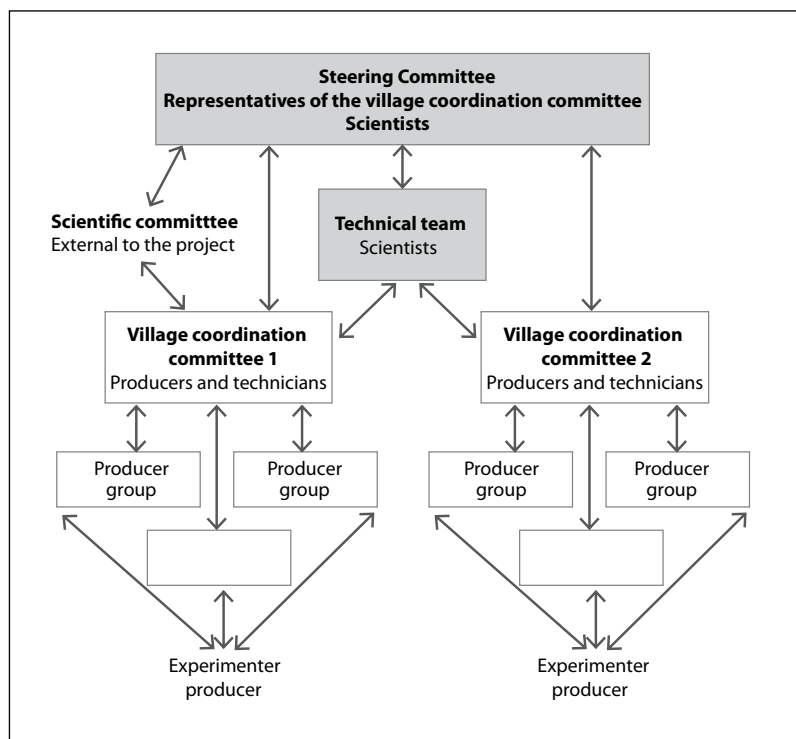


Figure 7. The governance mechanism of the Teria project.

The steering and scientific committees undertake the strategic planning of activities via collective debate and decision making. The village coordination committee involves on-the-ground stakeholders in the formulation of research subjects, in defining criteria for selecting farmers to undertake experiments, then in actually selecting them, in monitoring activities, and in evaluating the results.

Representatives of producer groups update specifications for experiments and finalize the protocols, amongst other tasks, during the meetings of the village coordination committee.

The governance mechanism, via these three types of committees, defines the rights and responsibilities of each partner, which, taken as a whole, constitute the ARP's ethical framework.

This case study pertains to the functioning of this multi-tiered set-up in the specific context of experimenting with bovine fattening in the dry season, drawing up a problem-set, and formulating research questions and hypotheses, and of implementing and evaluating activities.

**Table 2.** Composition and roles of governance authorities of the Teria projecta

Authority	Composition	Roles
Scientific committee	Cirad, Inera, universities	Framing of methods, quality control of knowledge produced, proposals for strategic reorientations
Steering committee	Scientists: Cirad, Cirdes, Inera – Village coordination committee: 4 representatives per village (producers and technicians)	General planning of activities, monitoring of activities (appraisals, etc.), conflict arbitration, funding negotiations
Village coordination committee	Executive office (6 members) General office (in charge of organizing, advising, information flow, etc.) Producer groups belonging to village coordination committees Network of experimenter producers	Interfacing between scientists and producers, monitoring the flow of information, executive management of activities

Conducting the experiment and the role of governance mechanisms

Preliminary studies of the agropastoral situation at Koumbia and Kourouma villages had identified bovine fattening activities at the farms of a few agropastoral farmers, briefly evaluated its profitability, and identified weak points relating to cattle feeding practices and insertion into markets. Representatives of the village coordination committees and the technical team presented this topic during the first meeting of the Teria project's steering committee. The aim was to improve the technical and economic management of the fattening activities within a perspective of local development.

The idea was to analyze, in real time, several fattening enterprises with their owners and then suggest improvements specific to each situation. The final product was to be a practical guide for bovine fattening available to the Teria project initiators, village coordination committees, and technicians.



After the steering committee meeting, representatives of the two village coordination committees presented the objectives and methods to their members. In each village, the members then identified, on the basis of criteria openly debated, four voluntary producers for conducting a bovine-fattening project during the 2006-2007 dry season. Two of them had already been practising fattening for several years, the other two were novices in this field.

The Teria project proposed four progressive stages to handle this type of experimentation while meeting the major objectives of an ARP:

- Contractualization, via drawing up of a specifications document;
- Diagnosing and formulation of the problem, based on an analysis of the initial individual projects;
- Formalization of knowledge and strengthening of learning, via training sessions and inter-village exchanges;
- Implementation of the technical aspects of the experimentation, i.e., a feasibility study of the experimentation for fine-tuning the initial project, implementation of the experiments coupled with an analysis of farmers' practices and strategies, and an assessment and valorization of the experiments (difference between what was planned and what was achieved).

II) Contract agreement: drawing up the specifications

Experimentation starts with the drawing up of formal specifications listing the respective responsibilities of the producers and the technical team for each stage. The format of the specifications was decided by the steering committee, then explained by the village coordination committee to the farmer volunteers, then further refined and modified to address their concerns.

This process makes it possible to specify who does what and how. Thus, at the start, each participant knows to what he is committed and, in case of problems, participants can fall back on the specifications as an arbitration mechanism. At this early stage, the calendar of experiments has been suitably adjusted, as has the list of material contributions of the various partners, logistical aspects such as study tours, and final products of the experiments, for example, technical datasheets or a practical guide.



▮▮ Diagnosis and formulation of the problem: study of the initial projects

The technical team comprehensively analyzed the production unit of each voluntary experimenter including any previous bovine fattening activity. Several common issues were identified in these initial fattening projects, including strong points and weaknesses.

The four cases were intensive-fattening projects planned for around three months during the dry season and involving between 2 and 14 discard animals. The proposed fattening practice was based on feeding each bovine 2 to 3 kg of cotton oil cakes per day. The idea was to buy cheap discard animals, ready to be culled, and to get them rapidly back into shape via a rich feed and sustained prophylaxis to be able to resell them at the highest possible price.

Several weaknesses surfaced. Feeding costs were high due to the indiscriminate use of cotton oil cake. Animal husbandry infrastructure, including stables and hay stores, was not up to the mark. Information on market outlets was hard to come by and was often faulty. The newcomers to bovine fattening had unrealistic expectations of cattle sale prices. Management tools were inadequate to allow the producer to take proper decisions, even though the experienced bovine fatteners noted down their receipts and expenses in a notebook.

The positive aspects were the existing experience in livestock farming and the ownership of a cattle herd.

▮▮ Formalization of knowledge and strengthening of learning

Before the start of the technical part of the experiments, the village coordination committee and the technical team organized exchange visits between the four volunteers and a visit to a fattening farmer expert who was not participating in the experiment.

These exchanges helped producers become part of the process of finding solutions to their problems and to become conscious of the various expectations of the fattening project's proponents. In general, these expectations related to discovering fattening practices, to learning how to reduce feed costs, to tricks for bargaining down the purchase price of animals, and, finally, to ways of choosing good animals. The expectations of the novices were somewhat vague, those of the experienced ones more specific.



Following the brief presentations of their projects by the volunteers, the exchanges, conducted in Dioula, quickly became a learning process on the choice of animals (how to avoid buying a sick animal, for example), the best periods in which to buy them, techniques on diversifying feed, reducing the feed costs, and exporting products to the Abidjan market in neighboring Ivory Coast. On their return from the exchanges, the farmer-experimenters decided to apply some of the newly acquired knowledge in their projects.

■ Conducting the technical part of the experiment

At the end of the first three stages, the technical team and the fattening-project volunteers reformulated the technical aspects of the project, with detailed calculations of daily feed quantities. Also discussed were the commercial implications of the project for each producer.

The producers then set up their fattening enterprises and each project was evaluated at the end when the animals were sold:

- One of the four producers, despite a project that was formalized in greater detail than those of the other three, could not raise the money to acquire animals. He therefore decided to postpone his project to 2007-2008;
- The other three producers finished their projects. But they were unable to reduce feed costs as much as expected, having already acquired feed stock before the project was reformulated. Nevertheless, one experimented with urea-treated rice straw he had in stock, following a specific protocol;
- A novice producer made good profit even though he did not get the expected sale price. As the project progressed, it became more realistic;
- A second producer did not implement the modifications introduced in the project reformulation and retained the original parameters. He seemed happy with a less-than-optimum financial result but one that was guaranteed by the animal dealer he normally dealt with;
- A third producer adopted a different sales strategy inspired by what he saw at the expert bovine fattener. He chose to sell the animals in Abidjan, rather than in Bobo-Dioulasso, a risky but potentially rewarding decision. He formed a partnership with his usual local retailer. They hired a cattle car, pooled their animal stock, bought additional heads to fill the car, took care of administrative requirements, and prepared for and undertook the trip to Abidjan. Selling the animals there made him a handsome profit.



Analysis of the project's results and discussions between the technical team and the village coordination committees showed that intensive bovine fattening during the dry season is indeed a profitable activity. It carries some risks, however, mainly due to the investments required. Even though funding under the Teria project ended, the four producers carried on bovine fattening activities in subsequent years, yielding positive results and further lessons.

To extend the approach to other producers, a practical guide for undertaking bovine fattening activities was produced. It advocated a flexible approach based on gradual adjustments along the way. It recommended exchanges between the project proponent and the village coordination committee or the animal-husbandry technician in three steps: the definition of the project objectives, the design of the initial project at the technical and economic levels, and, finally, the monitoring, possible adjustments along the way, and final project assessment.

Impact of involving farmers in the decision-making process

The participation of local stakeholders in the decision-making process was one of the main features of this ARP. The partnership was based on an organized governance structure with responsibilities clearly distributed amongst the various authorities and on the establishment of an ethical framework around shared values. For such a system to work, it was paramount that the information flow between the members of the various governance committees remained free and unfettered.

Involving local stakeholders in experimental activities led to a rethink on the entire experiment, its progress, and its end results. The changes that were brought about by this sequence of stages are as follows.

The issues to be addressed emerged gradually from the concerns expressed not only by the experimenter-producers but also by the farmers' representatives in the various committees. Scientists, producers, and technicians all worked together to refine the issues to be addressed. Studies, along with reporting back their results to the producers, and the ensuing discussions were part of this process. The researchers were thus gradually able to bring the farmers around to think on the basis of working hypotheses.



By conducting the experiments with a focus on formalizing knowledge and on learning, the experimenter-producers were well on their way to obtaining answers to their questions. By doing a “bibliographical” analysis of sorts, they were, in their own way, doing work analogous to that of the researchers.

The drawing up, right at the start, of a contract between the experimenter-producers, scientists, and technicians, helped determine together each participant’s reciprocal responsibilities. This contract, in the form of the specifications document, formalized relationships between participants and committed them to various responsibilities for the duration of the project. As time passes and when such commitments are upheld, trust between the participants progressively increases.

Exchanges between researchers and the experimenter-producers during the technical implementation of the experiments helped analyze individual projects in detail and revise them in real time. They also helped increase knowledge about the producers’ fattening practices and on the performance of such livestock farming systems under various conditions.

Even though preplanned, the experiments remained flexible. They included stages to analyze, exchange, and implement activities. The results obtained at each stage were used to fine tune the next.

Summary

The contractualization of relationships between scientists, producers, and technicians in the case of the Teria project resulted in a rethink of conventional wisdom about the way farmers and livestock producers learn. They are quite capable of constructing and conducting a structured project. But they cannot work alone; they need to interact with their peers and with external actors for acquiring and producing new knowledge.

By ending the isolation of producers and by facilitating dialog between them, scientists, and technicians, the village coordination committee puts this principle into practice. Thus, it plans activities, encourages initiative taking by providing information that sheds light on the decisions taken by the projects proponents, assists in implementing activities, and contributes to the evaluation of results. Such a committee is an essential factor in building the management capacities of the practitioners.



All the governance mechanisms that include the producers – the steering committee and the village coordination committees – become forums where new relationships of trust are forged between different types of stakeholders, a propitious factor for the emergence of new questions to tackle and proposals for action.

As a field technician of the Teria project in 2008 remarked, “Farmers and breeders of Koumbia today see researchers as partners with whom they can discuss new issues. The researchers listen to them, discuss with them, eat with them, and are interested in their cultural practices, even ancient ones.”

Listening to these producers on this subject, one can only be impressed by their rehabilitation as intelligent men and women with a conscience. They are not mere instruments that administrations, technicians, or even researchers often tend to manipulate.

Thus, before the end of funding of the Teria project and the disengagement of researchers, the participants decided to set up a new ARP project. This project also involves crop-livestock integration, but on a much more ambitious scale involving several villages and administrative regions. Its overall responsibility rests with a farmer organization that brings together the different producer groups that were associated, in one way or another, with the various committees.



Conclusion

The governance of an ARP aims to create conditions conducive to the participation of all stakeholders in the decision-making process. It is based on an ethical framework defined during the launch phase.

One of the key components of this ethical framework is the establishment of rules governing relationships between participants and specifying the use and ownership of any results.

Governance mechanisms help define the strategic directions of the project, plan activities, evaluate results, and manage any possible tensions and conflicts. The authorities can take several forms (for example, steering committee, scientific committee, local committees) to be able to include all participants in taking the decisions that will impact on them. An ARP's operational rules are discussed and formalized in documents and/or during special events.

The implementation of such governance mechanisms is the most important feature that distinguishes an ARP from other action-research approaches. It is this that gives the word "partnership" its full meaning.

Implementing an ARP requires a broad range of tools with varying degrees of complexity. Most of these tools originated with participatory approaches or more conventional research methodologies. It is the way they are used that is original, i.e., by involving all the stakeholders in their design and use, in a learning process for mastering them and for valorizing the results produced.

In this way, the tools facilitate various functions: information collection and configuration of knowledge, helping solve problems by allowing the planning and evaluation of activities, and intermediation by facilitating dialog and exchanges between participants.

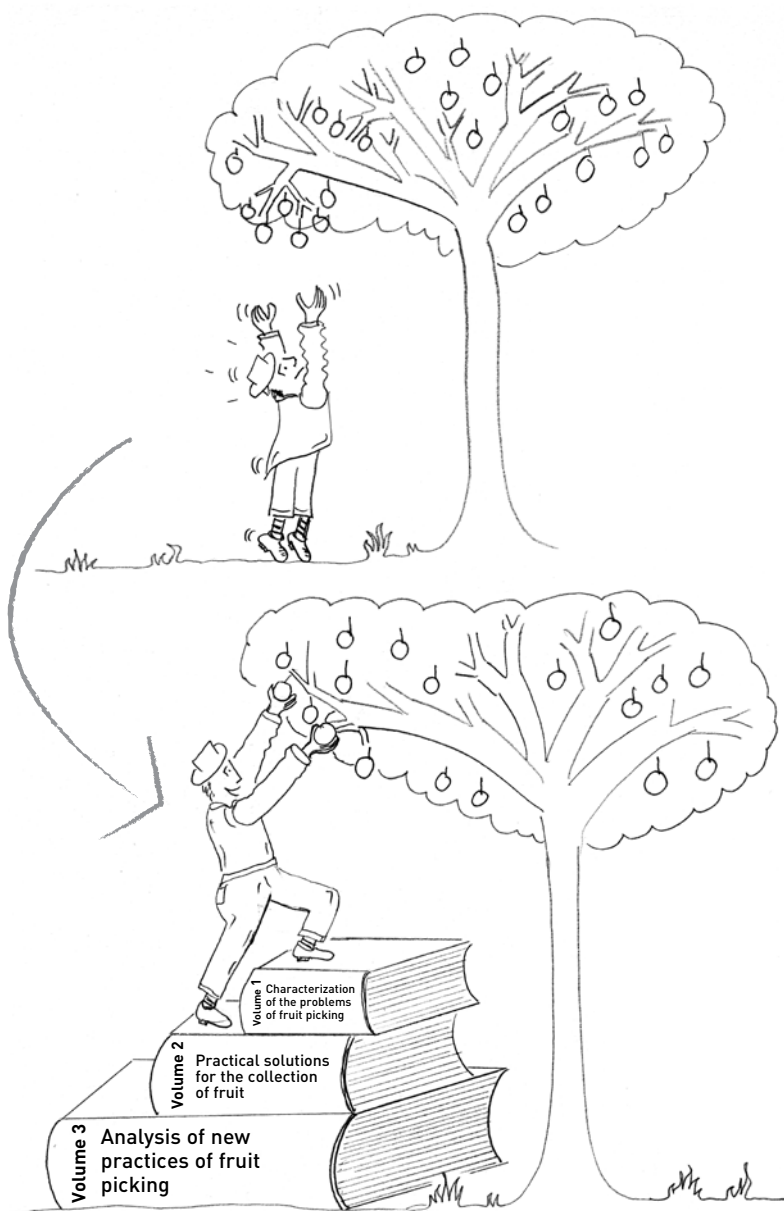
However, certain useful rules should be followed to select and adapt tools. To begin with, the tool should actually relate to the questions posed by the stakeholders and should be adapted to their requirements, not only to those of the researchers. It should help boost the stakeholders' autonomy and provide quick visible results, even if they are partial. Finally, it should be accessible to the various stakeholders and should be flexible enough to accommodate changing needs and rising stakeholder skill levels.

Good management of communications between participants and with the external world is fundamental to an ARP's success. Facilitation and mediation functions are also important and specific skills have to be developed to master them.



Part 4

Results, monitoring and evaluation



The results of the ARP: it leads to new knowledge, the solving of problems and the building up of stakeholders' capacities



12. Characterizing results of action research in partnership

L. Temple, F. Casabianca, M. Kwa

Hypotheses that shape the results

The specific and dual character of ARP (see Part 1) raises questions on what can be considered or termed as “results” or “outcome” and, by extension, on how an ARP can be evaluated.

As in other fields of research, evaluating the results of an ARP entails examining how far the initial objectives were achieved. And yet, it is common to obtain numerous intermediate results since several stakeholders are involved who implement activities in interaction with each other over the course of the project. Such interactions often lead to unexpected results, not initially identified or aimed for.

The result of an ARP or, rather, the quality of its result depends partly on the ARP’s origins and the degree of satisfaction of the partners (see Chapter 6, “Enrolling stakeholders and the place of researchers,” page 79 and Chapter 7, “Introducing action research rooted in partnership: the Unai project in Brazil,” page 97). This notion of satisfaction is fundamental: Have the stakeholders changed their perceptions of the problem and their situation, thus allowing them to jointly formulate solutions? To what extent has the identified problem allowed stakeholders to identify new partnership areas for helping them formulate solutions?

The ARP’s scientific legitimacy is based on the relevance of its results and the method of evaluating them. It is therefore necessary to distinguish, on the one hand, the research hypothesis, which shapes a long-term program for the researcher and, on the other, the action hypotheses that directly resulted from the action situation and that were worked out within the ARP collective.

The research hypothesis focuses on the principle that there is a need to know the determinants of change in order to validate explanations proposed for the phenomena under study. Action hypotheses relate to the ability of actions undertaken to come up with solutions to the



problem at hand. A specific ARP feature is to adapt research hypotheses to the outcome of the action.

Differentiating these two hypothesis types leads to a better understanding of how knowledge is created. The knowledge is “positioned” depending on the context, and is directly related to solutions and to what is at stake in the action.

In the research domain, two kinds of knowledge are required to validate the scientific positioning of the process: knowledge about the change itself and knowledge about the determinants of the change (its causes, conditions under which it occurs), which requires establishing causal relationships between the corresponding factors (Albaladejo and Casabianca, 1995).

As far as action is concerned, one of the key outcomes is the ability to come up with practical solutions to the identified problem, or even to change its conditions of expression. This change in the “conditions of expression” can be related to the innovative nature of the knowledge created and to the building up of the autonomy of stakeholders participating in the ARP.

Iterations that typically occur in an ARP process due to its cyclical nature (see Part 2) lead to periodical reviews of action hypotheses according to the intermediary results or solutions obtained, irrespective of whether they are positive or negative. The relevance of the results increases since, contrary to what is often the case in conventional linear approaches, there is no need to await the end of a project to get results and to evaluate them.

As the various partners increase their knowledge, they find it easier to pinpoint the conditions for validating initial research hypotheses. ARP thus allows the approach to be progressively fine-tuned using intermediate results. This assumes that all the stakeholders agree, at the outset, to modify their actions gradually as and when conditions for validating initial hypotheses become clear.

More specifically, ARP produces four broad types of results:

- New knowledge for the stakeholders, including scientific research;
- New questions for research;
- Resolution of problems encountered by the stakeholders;
- Building capacities and increasing the autonomy of individuals and collectives.



Producing new knowledge

New knowledge can be compared with knowledge already acquired elsewhere to identify its specificity and originality in the context of the intervention. Moreover, knowledge created through an ARP is often particular to specific situations (see Box 18). Approaches that compare different situations help build up more generic knowledge relating mainly to the conditions of change.

This knowledge can be valorized by the researchers, for example, via publications and training material, and by the other stakeholders, for example, by improving their skills and expertise or by using documents suited to their needs.

Knowledge is derived through a reflexive process. This process is manifested, for example, through the quality of questions on action and future research (relevance of research) and the modalities of

Box 18. Creating specifications for marketing pork in northern Vietnam

T.B. Vu (2002)

Producers decided to develop, with the help of research, specifications for the production of “quality pork” in the Red River delta in northern Vietnam. The purpose was to strengthen the negotiating power of producers by organizing the collective marketing of homogenous batches of pigs reared by different producers.

An ARP approach was implemented to provide answers to three questions: (1) how to define production criteria for specifying a “suitable pig,” (2) how to organize a local debate to change the practices of the producers to meet these criteria, and (3) what new knowledge to create, for the pig producers and with their help, to evaluate their practices and to encourage them to comply with the specifications.

The following knowledge was produced within this framework:

- A characterization of production systems and practices of pig producers;
- The definition of several pig rearing techniques, adapted to the diversity of production conditions of the producers so as to obtain pigs that comply with the specifications;
- Specifications in the form of a document used by the producers;
- An approach for addressing the marketing of pigs in other situations in the Mekong River delta.

Some knowledge was validated and valorized by the actors. Some was validated in an academic context and resulted in student reports and scientific publications.



knowledge creation (building up research capabilities of the various stakeholders) which help mobilize the stakeholders involved.

▮ Status of knowledge

ARP leads to the creation of knowledge in three main areas: stakeholder strategies, functioning of technical systems and ecosystems, and action-research methodologies.

The status of such knowledge can vary between:

- Remaining tacit and fostering a common representation that stakeholders have of their reality;
- Being “revealed,” i.e., it is spelled out by the stakeholders; this process may include a publication phase, for example, research or development articles, or public communications;
- Being valorized, due to its generic character, in other similar situations by other groups of actors, or in training programs.

All this knowledge allows processes of change and innovation to be better characterized. In addition, the creation of such knowledge helps increase social capital via the associated learning processes. Social capital can be defined as social relationships and common norms and values that build relationships between individuals. It can be built by time and energy invested by society or by the cultural heritage and behavioral standards inherited from the past.

Knowledge on stakeholder strategies

With the help of the specific set-ups put in place (see Chapter 8, “Governance mechanisms,” page 107 and Chapter 9, “Operational mechanisms, methods, and tools,” page 121), ARP creates or modifies interactions between the partners involved. Such a situation lends itself to observing the cooperative behavior (to help reach stated objectives), the formation of alliances (to have greater say in decision-making matters as compared to other stakeholders), the competitive behavior (to safeguard personal interests or in the form of an unwillingness to share technological advances), or even stonewalling or process-blocking behavior (incomprehension or divergent interests).

Studying the corresponding dynamics, i.e., the evolution of goals of the different stakeholders, their representations, their respective projects, and the room for maneuver they have at individual and institutional levels, can eventually help identify stakeholder strategies. In this way,



we can understand how rules, norms, networks, and conventions that shape individual and collective behavior are built.

Knowledge on the functioning of ecosystems and technical systems

ARP enables the creation of knowledge on technical systems and ecosystems through surveys for undertaking an initial diagnosis or for obtaining information required to conduct research.

ARP enhances the ability to address technical, social and ecological determinants of agricultural activity (Rey-Valette *et al.*, 2007) and thus improves the understanding of the functioning of technical systems at various levels. Indeed, several levels of observation can be involved, such as crop or animal, field or herd, production system, family unit, organization, territory, or supply chain.

In some cases, knowledge may relate to biophysical processes such as the performance of a crop in a given situation or the incidence of a parasite on the performance of livestock. This knowledge relates to the nature of the problem-set constructed by the stakeholders and to what is necessary to search for solutions.

Knowledge on action-research methodologies

The approach implemented helps generate methodological knowledge on how to initiate and conduct action research processes that are suitable, on the one hand, for the diversity of institutional and social realities and, on the other, for the diversity of members of teams carrying out such research.

Validation of knowledge and its use by scientists

ARP is a constructivist approach (see Part 1). A hypothesis is therefore validated not by declaring it true or false, but by specifying the conditions under which it is confirmed (Le Moigne, 1995). These conditions tend to make the results dependent on the framework and context of the intervention, which affects the possibilities of generalizing the results.

Two additional issues are involved in the specification of the conditions:

- Making explicit the stakeholder systems that shape and define the scope of relevance of the problem to be addressed and the avenues of action to explore;
- Specifying the domain in which the results are valid.



Validation thus follows from putting the domains of relevance and validity into perspective. In conventional research, the demonstration of the proof is based on rigorous experimentation and on the relevance of the results in relation to research hypotheses.

In an ARP, the demonstration of the proof requires detailed explanation of the conditions that had to be satisfied for effectively exploring the areas of the solution and for developing satisfactory solutions within that scope. The methodological success that leads to the testing of *research* hypotheses by using *action* hypotheses is at the core of the scientific validation of generic knowledge.

Three criteria (Liu, 1992) help improve the validation of the results of action research: the level of likelihood, the level of forecasting, and the level of feasibility. The level of likelihood can be increased not only by repeated observations, but also by multiple observers with convergent analyses. The level of forecasting allows a hypothesis to be confirmed through observation. Finally, the level of feasibility allows testing of the hypothesis by participants undertaking voluntary actions.

Validation occurs when actors examine two types of questions:

- How to frame the problem and transform it into a resolvable question (Darré, 1997) by identifying solution spaces?
- How to identify solutions by putting them to the test in real situations?

By answering these questions, stakeholders can generalize results by identifying what can be transposed from one situation to another. Thus, a trajectory of capitalization of knowledge, more methodological in character, focuses on procedures researchers use to formulate research questions and on procedures for testing research hypotheses.

Academic validation of the knowledge created remains difficult. In some cases, this knowledge is indeed published as scientific or non-scientific papers. Most of the time, however, the knowledge originating from the ARP process becomes part of the tacit knowledge of those participants who have appropriated it.

The manner in which this knowledge is created in an ARP process can make it difficult for scientists to make use of it. Indeed, this knowledge results from interactions between the stakeholders, which sometimes makes it difficult to identify its originator. And yet, insofar as the creation of knowledge is based on a joint effort, its authorship must be shared. It is therefore necessary to establish rules or some sort of



“ethical code” for the collective to prevent individuals from claiming credit for themselves while ignoring contributions from the group.

Moreover, this knowledge comes from interactions between disciplines (social sciences and biotechnology), which makes their validation in the form of recognized scientific articles sometimes difficult. This is why the ARP movement should try to get better recognition by publishers and the scientific community.

The issue is of the recognition of this multi-disciplinary and holistic research approach which, by and large, contributes to changes in scientific frames of reference and fulfills the aspirations of the partners involved.

Reformulating and updating research questions

Conventional researchers often work in isolation, focusing on their areas of competence and their discipline. Consequently, they are often unaware of interactions their research may have with other thematic or disciplinary domains.

This state of affairs of specialized researchers in their ivory towers, often leads to separate research efforts on the same theme, with researchers approaching it from the partial views of their respective domains, using separate protocols, at different periods. Such a segmented approach leads to duplication of experimental research and is not conducive to the coalescing of results.

By contrast, ARP proposes to mobilize several disciplines within a single project in a process of capitalization.

Finally, it is worth remembering that the results of an ARP can be achieved as much in the short-term (sometimes within one year, but typically within 5 to 10 years) as in the long-term (beyond 15 years, or sometimes even over 30 or 40 years). These longer periods of capitalization must involve feedback. The researchers must internalize the need to revisit the fields of action on a regular basis. This they must do with a willingness to accept changes that have taken place with a view of reformulating new questions.

Thus, the adoption of reflexivity linking knowledge and hypotheses engenders second-generation hypotheses. This feedback mechanism may throw up difficulties insofar as it may not force the researcher



to revisit the original question. It may instead highlight the need for completely new research, whose conduct was not foreseen and planned for in the project underway.

It is in this manner that an ARP can help formulate, if it is fruitful, new questions and research hypotheses, which may have a wider ambit, as shown in Box 19.

Box 19. Formulating a research program based on the results of an action research in partnership

C. de Sainte Marie and F. Casabianca

A research team assisted a group of farmer-processors of dry pork products from the mountains of Corsica. Their objective was to help them market these products, characteristic of their region, in a high-end market segment. The traditional nature of these production systems led to a strong reliance on the local expertise to propose innovative products: a “carry over” dry sausage (culling in winter for consumption in summer) and an 18 month-old dry ham. To develop these two products, the group had to be able to validate, at each step, research hypotheses, action hypotheses, and results. This allowed the main question to be addressed: how to innovate together in ancestral production systems.

In this case, it was by using retrievable memory of the local culture, particularly for products meant for self-consumption, that this question acquired meaning and was able to be further broken down into more practical questions: What techniques are used by farmer-processors to produce ham and sausage? Who are the people who possess this knowledge? How to mobilize this ancient knowledge to develop new products?

Questions in this ARP, which were specifically asked by producers or producer organizations in several other situations, then became constituents of a research program on developing new food products based on local knowledge. This ARP thus served as an example that has helped answer, through acquired knowledge, a much broader central question.

Answers to stakeholder questions

The third result of an ARP is the resolution of the stakeholders’ problem. It is important to consider two elements. First, the causes and the conditions of change are as important as the terms of the change itself (what it impacts). Second, technical aspects must be considered at the same level as aspects relating to human or institutional issues.

In fact, the diversity of stakeholders and partners involved in an ARP often allows the exploration and creation of new spaces for technical



and organizational solutions for well-known problems that were hitherto considered unsolvable. It also allows the progressive specification of those conditions that will have to be satisfied before some solutions can take effect.

For example, a new space for a solution to a problem that has no apparent solution at the individual level can open up when its scope is changed and it is treated at the collective level. The challenge then becomes knowing how to form this collective and how to lead it to look for solutions, and not to focus at the problem as it was originally formulated. We distinguish between results at the technical level from those at the organizational and institutional levels.

▮ Results at the technical level

In order to solve the problem identified by stakeholders, an ARP can lead, as with more conventional research, to the creation and dissemination of technical innovations related to, for example, agricultural production, product processing, or management of natural resources.

But in contrast to conventional research, such innovations are already tested and validated on farms, businesses, or territories and are better suited to the needs and limitations of the stakeholders concerned (see Box 20).

▮ Results at the organizational and institutional levels

Technical innovations are related to organizational innovation, as illustrated in Box 21. The resolution of the problem encountered by the stakeholders in an ARP thus requires a strengthening of the effectiveness of collective actions via improved coordination between stakeholders.

ARP leads to the building up of social capital that can, in some situations, result in the creation of formal organizations to sustain the dynamics of change. It can thus give rise to horizontally structured organizations, such as producer groups, cooperatives, and federations with the same economic goals, or to vertically structured ones, such as inter-professional organizations and integrated businesses.

In addition, such new coordination efforts can result in the emergence of new norms governing the relationship between organizations in the same commodity chain or territory. These norms are mutually agreed upon and strengthen the identity and distinctiveness of existing organizations.



Box 20. Technical innovations for plantain producers in central Cameroon

L. Temple and M. Kwa

Plantain producers in central and southern Cameroon find it difficult to expand their plantation with high-yielding resistant plants. In fact, conventional techniques of propagation by suckers encourage viral contamination.

An ARP was initiated in 2000 involving researchers, the staff of a development project, and producers. It helped perfect new techniques among the farmers for producing healthy suckers through micro-cuttings. The techniques were subsequently adopted by nursery owners who proposed modifications to the original methods based on their expertise and experience. This led to the establishment of a network of nursery owners that notched up sales of 100,000 seedlings. A monitoring and evaluation program of the corresponding partnership set-ups since 2002 led to the updating of concerns facing agricultural research. In this particular case, the success of the new techniques led to an increase in thefts from nurseries, so much so that nurseries had to be moved closer to human habitation. However, the use of sawdust in these nurseries led to the proliferation of termite hills, thus posing a risk for houses. Consequently the ARP, which had initially aimed at the creation of a new technology, had to initiate new research to solve the problem of termite attacks.

Box 21. Institutional innovation

L. Temple and M. Kwa

The ARP approach implemented in central and southern Cameroon created conditions for the emergence of two organizations that are complementary but located in different areas.

The first is an inter-professional network for plantain (Ribap, Cameroon) that consists of about 50 nursery owners (growers) and supervisors (field advisors). Its objective is to improve the techno-economic performance of member nurseries.

The second organization is an association of plantain growers in Leikie at Sa'a (Aspabal). It consists of 11 nursery owners whose main activity is the sharing of information on marketing opportunities, sharing of experiences, and commercial promotion of the new plantain material. These different initiatives institutionalize a network of experimenter-farmers based on seedling production.



ARP also modifies the coordination between institutions, particularly between research institutions and development agencies, between research and producer organizations, and between development agencies and farmer organizations. It can lead to the creation of social networks and building up of a strategic resource that is always difficult to assess: the trust between stakeholders in a territory or a commodity chain (see Chapter 7, “Context and issues,” page 97).

Building individual and collective capacities

▮ Building individual capacities

ARP is a learning process that relies on constant interactions between stakeholders to jointly formulate research questions, identify solutions, and evaluate results.

In the agricultural sector, the ARP stakeholders acquire new knowledge on plants, animals, interactions between the physical and human environments, and the functioning of organizations. They thus improve their ability to observe environments, their management skills, and their ability to experiment (Temple *et al.*, 2006).

More generally, participation in an ARP process leads to improved skills of individuals in the domains involved through the acquisition of knowledge or specific know-how. A participant thus regularly experiences collective recognition and also derives personal satisfaction from being a member of the ARP collective.

▮ Building collective capacities

In general, ARP improves the ability of the stakeholders to build partnerships that shape collective actions and increase the effectiveness of their activity (see Chapter 2, “Research in partnership,” page 31). It thus increases usable knowledge (actionable knowledge) and improves the ability of stakeholders to convert it into coordinated actions. Consequently, human capital and social capital increase simultaneously, even though it is often difficult to measure and evaluate them.

The degree of stakeholder involvement in collective action, i.e., the level of mobilization in the implementation of the ARP, is an important indicator of the degree of appropriation of the ARP approach by them.



Increasing autonomy

This acquisition of knowledge and know-how builds the capacity of participants to be autonomous, i.e., it enhances their ability to undertake new experimentation by themselves with an increased probability of success.

This increase in autonomy can, in some cases, be considered as an important criterion for assessing the success of an ARP. For this, we must be able to show that the autonomy imparted allows stakeholders to tackle a new, more or less similar problem, without external support.

Finally, institutional and organizational changes, development of new stakeholder capacities (posture, awareness, effective participation in action) and the collective ability to formulate problem-sets, mobilize expertise, and implement actions can all be viewed as results of an ARP.



13. Monitoring and evaluation

L. Temple, F. Casabianca and M. Kwa

Results of an action research in partnership (ARP) are measured using the concepts of effectiveness and efficiency (Garrabé, 1994). Efficiency relates to the analysis of relationships between the resources employed and results obtained, either during or after the project (ex-post evaluation). Effectiveness relates to the extent of divergence between the initial objectives, as decided before the action, and the objectives actually achieved during the process or after the action. Effectiveness is assessed through an appraisal of satisfaction of the ARP stakeholders or through indicators specified by actors outside the ARP.

Effectiveness can be evaluated according to a criterion of achievement or non-achievement of objectives and a criterion of degree of achievement.

We will limit discussion to ex-post evaluations. These evaluations usually fulfill external requirements designed to verify the proper use of resources (see Chapter 15, “Funding an action research in partnership: strategies and practices,” page 197). They usually originate from funding entities, which are not necessarily associated with the governance and control of the ARP process (see Part 3).

Similarly, we will focus on indicators which measure the satisfaction of ARP stakeholders rather than those set by external actors to gauge other objectives.

Can the results of action research in partnership be measured?

We will endeavor to highlight here the methodological difficulties in measuring an ARP’s results. To do this, we will distinguish between expected effects, unexpected effects, and unwanted effects. Expected or planned effects are generated by the implementation of solutions identified by the ARP stakeholders. Unexpected effects can sometimes turn out to be the most important ones. Finally, there can be unwanted effects such as a crises, conflicts, or failures.



■ Fulfilling initial objectives

An ARP follows a nonlinear trajectory. The contents of ongoing activities are subject to change and can result in the modification of the original objectives. We must therefore distinguish the original and stated goals from those that emerge during the process, and then determine the extent of their implementation.

Indeed, given the qualitative nature of many of the outcomes, ARP stakeholders are hard put to define quantified objectives.

Consequently, the main purpose of monitoring and evaluation (M&E) is to assess the degree to which objectives have been fulfilled. Not only does M&E constitute an opportune time for analyzing the extent to which the objectives have been met, but also for building a consensus amongst participants to define indicators for measuring this fulfillment. There are no standard “recipes” for doing so, except the recommendation to base this evaluation on a collective viewpoint and not on that of any particular participant (the project initiator, in most cases). Box 22 illustrates how the stakeholders participate in this M&E exercise.

Box 22. Characterization of a hybrid variety

Researchers and development officers had set quantified objectives in a project that partly relied on an ARP process for validating a new variety of hybrid plantain (Crpb39). The objectives specified a fixed number of experimenter-farmers and a fixed surface area planted with the hybrid per farmer.

However, during the process, the number of farmers conducting experiments far exceeded the target set. The planted surface area, on the other hand, remained below the target, and did not allow reliable conclusions to be drawn on the agronomic performance of the hybrid variety in comparison to local ones.

To evaluate the extent of achievement of targets, it was necessary to sit with the partners and rework their definitions from the point of view of collective experimentation, and not limit them to the point of view of research.

According to these new objectives, it was no longer necessary to compare the performance of the new hybrid with those of other varieties in terms of agronomic criteria alone. Rather, it was more useful to analyze how the introduction of this hybrid amongst the varieties cultivated by farmers would improve overall production and quality, which would lead to better plantain sales for the producers.



Meeting objectives that emerge over the course of the process and are collectively considered as positive is sometimes more important than meeting the original goals. Indeed, questioning, during the process, of the ability of the ARP collective to achieve the original goals can help identify major roadblocks that were not initially anticipated and direct the actions of participants towards overcoming them.

Collective learning from such situations helps create new social networks that increase the ability of stakeholders to address other questions and thus promotes their autonomy.

▮▮ Meeting “implicit” or “explicit” objectives

An ARP’s objectives can also change over time as a result of alliances formed between stakeholders or due to competition and conflicts that may arise. This development is due to the fact that there are, on the one hand, clearly declared collective objectives and, on the other, implicit goals held by certain stakeholders that the research process often reveals (see Chapter 6, “Enrolling stakeholders and the place of researchers,” page 79).

These goals are said to be implicit from the point of view of the ARP process. Here are two examples, one for researchers, one for technicians:

- Some researchers may want to create knowledge that is not related to ARP’s declared objectives;
- Technicians may seek to increase their credibility with farmers in their advisory role and that of transferring research results, without necessarily subscribing fully to all ARP objectives.

These implicit goals are difficult to characterize, let alone measure. Governance mechanisms can sometimes help reveal them.

▮▮ Lessons from failures

Sometimes an ARP process fails to meet its objectives. Thus, instead of creating synergies between different stakeholders, it can, for example, crystallize existing conflicts between the producers and traders, induce conflicts of interests in individuals, or even lead to negative learning (“I will never work with researchers again!”).

These failures can often be traced to the governance of the process (see Part 3) which did not permit a real joint construction of the problem-set and/or a real participation of all stakeholders in key stages of planning and evaluation.



However, the evaluation of results and effects of the same ARP may differ from participant to participant. What is a clear success for some can be regarded as a disaster by others.

Once “failures” have taken place, the best that can be done is to find out why. If the participants agree on the explanation of the causes, the ARP itself cannot be termed a complete failure. It will have created knowledge on the difficulties of collective action, useful for the future.

It is clear that characterizing an ARP's outcomes is not easy, measuring them even less so.

Mechanisms for monitoring and evaluating results

Monitoring and evaluation is an integral part of an ARP (see Part 3). It can respond to two related issues that sometimes overlap but which need to be differentiated: the first is the issue that we are focusing on in this book, relating to the management of an ARP by the stakeholders, the second is related to the impact assessment for external authorities.

Two principles determine the success of monitoring and evaluation in the case of an ARP:

- The need for a shared perception of the usefulness of this monitoring, i.e., a collective understanding of its role in guiding the process and the possibility for each stakeholder to valorize it to help guide its own actions;
- The need for building a consensus on the indicators that are relevant and useful to monitor and on the modalities for monitoring them (data collection, data processing). We must be able to define the indicators that are meaningful from the viewpoint of the stakeholders' decision. We must also be able to assist stakeholders by training them to master techniques for assigning values to these indicators (see Part 5).

■ Monitoring and evaluation to manage change

The first challenge of monitoring and evaluation is an analysis of the change and of how it is managed. This monitoring is an integral part of an ARP's governance mechanisms (scientific committee, steering committee, local bodies, etc.) and provides inputs to them (see Section 3).

Participants are then actively involved in the self-assessment of results obtained and in the monitoring of indicators that allow results and



corresponding changes to be assessed. The participants' ability to manage these processes is strengthened. This self-assessment is necessarily participatory and oriented to the management of the action. It thus has a reflexive purpose.

The corresponding monitoring and evaluation is more oriented towards effectiveness, i.e., it is intended to assess the fulfillment of goals, rather than towards efficiency. It occupies a central place in the implementation of an ARP by generating information that influences the nature of stakeholder interactions, on the one hand, and helps capitalize knowledge and learning, on the other.

■ Monitoring and evaluation to measure the effects

The second challenge is to “inform” the parent institutions of researchers, agricultural field advisors, and producers who are members of the ARP collective, or funding entities or government agencies that contribute to its funding.

This monitoring and evaluation usually assesses the project associated with the ARP according to these institutions' own objectives. For example, a funding entity will want to know if its funds have been properly used, and a government agency will want to know if the ARP has had an effect on economic and social development. Monitoring and evaluation is then more an analysis of the outcome and effects to assess the effectiveness and efficiency during or after the process (is there still an effect when the ARP ends?).

This objective implies an evaluation at the “end” of the project. This monitoring is generally based on indicators that are most often set in advance.

The aim of measuring an ARP outcome is to provide information on the immediate consequences of the activities undertaken. This information can be arrived at by using indicators such as the number of producers involved, the number of member groups of producers benefitting from advice from the extension services, or the cost per member.

Measuring the effects of an ARP helps assess the short- and medium-term changes among beneficiaries, such as changes in decision-making processes at the farm or the community level, or changes in production techniques.



These effects may be direct or indirect. The direct effects concern ARP participants. Indirect effects are those that, by extension, affect actors outside the ARP or result in some participants using the results of the ARP in other contexts such as those of a district or a producer organization.

Monitoring and evaluation tools

Monitoring mechanisms (Beuret *et al.*, 2006) use conventional consultation and cooperation tools such as surveys, meetings, and relevant indicators. Although these indicators are not always measurable, they can be verified objectively. These are mainly based on a method of recording activities and reflections, using a log-book approach, which takes into account reformulations, open and abandoned paths, as well as milestones and other temporal aspects of an ARP approach.

Several difficulties are encountered during monitoring:

- Harmonizing the various tools of monitoring and evaluation;
- Deciding which ARP stakeholder or stakeholder group is in charge of monitoring and the degree of involvement of the various partners (see Chapter 8, “Governance mechanisms,” page 107);
- Collectively defining the evaluation criteria and the set of indicators;
- Defining the elements that characterize the indicators.

Two types of monitoring and evaluation tools are frequently used as part of an ARP: collaborative workshops and surveys.

Collaborative workshops among participants may, depending on the case:

- Collectively analyze the relevance of monitoring indicators, i.e., their ability to reflect the degree of achievement of goals, and the ability of stakeholders to assign values to them;
- Collectively evaluate the factors that limit appropriation of indicators by the participants;
- Evaluate the effects at the end of one of the ARP cycles for a comprehensive review, whose content is shared with all the participants.

Surveys can be of several types:

- Occasional and light monitoring of activities just to obtain the data required for referencing selected indicators;
- In-depth surveys to answer questions asked by participants to achieve the goals of the ARP or characterize the results obtained. These surveys can either be participatory or not, with individuals or with groups.



Monitoring and evaluation is mainly done by ARP stakeholders who need to collect and format information in order to manage their set-ups, conduct their activities and evaluate their results. In some cases, particularly in ex-post situations, investigators external to the ARP may be called upon. Box 23 presents an example of stakeholders using data and conducting analyses as part of a monitoring and evaluation exercise.

Summary

The ARP helps revisit so-called basic scientific approaches by incorporating social science and economics approaches for an improved understanding of changes resulting from action.

However, the results of an ARP are not all predictable. Academic valorization is sometimes difficult because the approach, which is often interdisciplinary, has to strive to meet the requirements of most experimental disciplines.

Another difficulty is in incorporating monitoring and evaluation in an ARP set-up managed by the stakeholders since this will require ethical aspects to be considered. ARP influences the development of values and consequently the institutional determinants of collective action.

The variability observed in ARP situations and the nature of the approach itself call for a specific approach to monitoring and evaluation. Beyond the generic positions and principles of M&E outlined in this chapter, every M&E system must be tailored to individual cases. A flexible approach to M&E is essential to an ARP's success.



Box 23. The survey set-up for participatory monitoring and evaluation in central Cameroon

An ex-post monitoring and evaluation methodology was tried out as part of an ARP on plantain in Cameroon. Data collection was alternated with discussions and negotiations between the partners: farmers, producer organizations, field-advisors, and researchers.

The first phase consisted of defining, in collaboration with the stakeholders, the evaluation goals and of asking them to collect available data such as notebooks of records, minutes of meetings, organizational statuses, and project audits.

In the second phase, field visits to experimental plots – plots and nurseries – were organized. This presented an opportunity for partners to continue their discussions on the field.

In the third phase, a three-part meeting for all ARP participants was organized.

In the first part, lasting for three hours, the participants (farmers, technicians, nursery owners) were each given 10 minutes to recount their experience according to a suggested format: What changes were implemented in the practices employed by farmers and what indicators were used by them to assess these changes? In what way did the relationships between farmers change and what indicators were used to assess these changes? In what way did the relationships between farmers and other stakeholders change and what indicators were used to assess these changes?

After three presentations, a 10-minute group discussion was held to collectively validate the presentations and encourage sharing and comparison of experiences.

In the second part, lasting for 90 minutes, the meeting facilitator asked questions concerning the effect of the ARP on the interactions between partners, conditions that participants would lay down for including newcomers in the groups formed, and, finally, suggestions for improving the innovation process.

In the third part, lasting one hour, participants were asked to fill in a questionnaire on quantified effect indicators. A technician was at hand to help clarify the issues to everyone, and also assist illiterate producers in filling in the questionnaire.

The fourth stage of the ex-post monitoring and evaluation exercise consisted of data collection by participants and data input, analysis, and the drafting of a report by researchers.



Conclusion

The scientific legitimacy of an ARP is based on the relevance of its results and the manner of evaluating them, and not only on their validation in the conventional sense of the word. A key outcome is broadening, for the participants, of the scope of solutions for a given problem.

The research hypothesis is based on the principle that it is necessary to understand the determinants of change to validate proposals that describe the phenomena under study. ARP simultaneously uses action hypotheses on the ability of the actions undertaken to develop solutions for the problem. One of its characteristics is to adapt research hypotheses to the outcomes of the action.

ARP produces different results at several levels:

- Creation of knowledge and new methodologies for scientific research on various themes, such as stakeholder strategies, the functioning of production systems and ecosystems, and action-research approaches. The validation of such knowledge requires a reflexive effort on the choices made along the way;
- Identification of new research questions due to the cyclical nature of the ARP and to its ability to reformulate research questions;
- The resolution of the problem reported by stakeholders in the innovation processes which can be evaluated either as a result of action whose effects we measure, or as an assessment of the process generated by the ARP;
- Building the capacities of individuals and collectives for greater autonomy; this outcome is analyzed via social transformations at the institutional and organizational level.

Monitoring and evaluation of an ARP requires great flexibility, i.e., an ability to adapt as the action progresses. Although it forms part of the management of the ARP approach, it can also serve to inform other stakeholders outside the ARP itself. It attempts to characterize all the effects, direct, indirect, and unexpected, including, for example, the dissemination of new technologies, changes in decision-making processes, collective learning, and building up of social capital.



Part 5

Operational considerations



14. Training for action research partnership: strategies, content and modalities

B. Triomphe and H. Hocdé

This chapter is meant especially for the professional researcher or technician, proponent of an ARP being launched, who is responsible for training the members of its collective.

Perhaps this individual has already read some reference texts on ARP or has participated in ad hoc training sessions on the topic. He or she may have been involved in the past in implementing projects using an approach similar to that of ARP. In any case, this person has to be able to answer this question: How to design and implement an effective training strategy in ARP for the members of its collective?

To help the person think about and answer this question, this chapter suggests specific points to be considered by outlining general training strategies – and also specific ones for initial and ongoing training – and by covering various pedagogical modalities.

General training strategy

Initial training and ongoing training

Any training activity for ARP is only meaningful when it is part of an overall approach for improving the ARP collective's effectiveness in pursuit of its objectives. It has to be part of a strategy that the collective will define at the very start, subject, of course, to mid-stream corrections.

The overall training plan will follow a coherent thread throughout the project's life; it will not be limited to a simple sequence of piecemeal training sessions or activities. As an example, Figure 8 shows the organization of an overall training plan for an ARP project spanning several years.

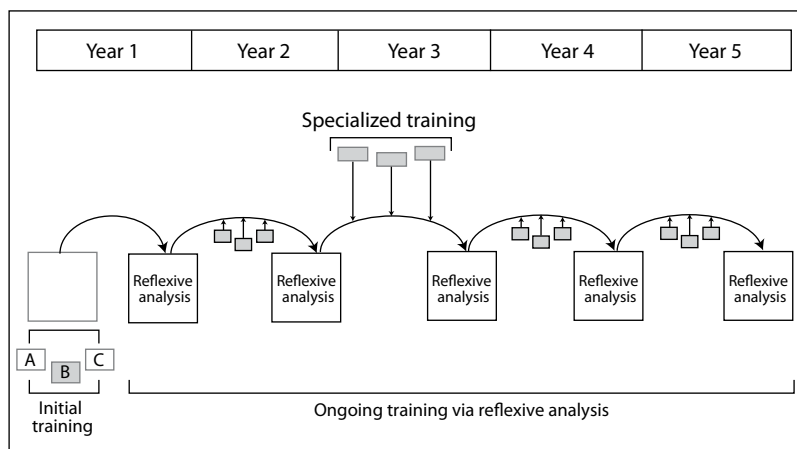


Figure 8. Example of the structure of a training plan for an action research in partnership (ARP) project.

Depending on specific cases, other training arrangements are, of course, possible. In the case shown in Figure 8, the ARP project starts with initial training modules. It then incorporates a regular sequence of training sessions, corresponding to the ARP's cycles and based on reflexive analysis.

Specialized training activities are included between these collective milestone sessions to attain the goals set by the ARP collective and which, indirectly, will enrich the reflexive sessions.

Whatever the structure adopted for them, the training activities eventually decided upon take place in a non-linear, interactive manner.

The initial training can take one of several different forms. For example, we can organize intensive workshops spanning several days. They can be meant for all the members of the ARP collective (workshops A and C in Figure 8), or for a subset of them (workshop B), for example, only for researchers, farmers, or technicians, for in-depth training on topics that concern only them (see as an example, in Chapter 7, the experience of the Unai project in Brazil with its series of workshops spread out over 18 months).

Other standalone training activities or modalities designed or identified during the course of the project and deemed pertinent by the collective will be inserted into this first series of workshops. Let us not forget that the ARP project can also send a representative to attend training sessions thought useful by the collective but which are



external to the project. In such a case, some thought will have to be given to choosing the “right” representative to send and the contract the project should enter into with this person. Such a contract will formalize not only how this person will present the project at the external training session but also the way he or she will report both its content and form after the training.

▮ Operational decisions in organizing a training

The formulation and adoption of a strategic training plan facilitates the taking of operational decisions. As a rough guide, we provide here some of the points to keep in mind and some criteria for guiding the corresponding decisions.

Selecting participants

The selection of participants depends on the shape of the partnership, the role each participant is expected to play, their profiles, and their level of involvement in the collective.

Where to train?

The points to consider in choosing a location for the training are:

- Selecting locations where the participants will feel comfortable, which will create links between the various participants (for example, alternating between open-air locations and indoor classrooms), which offer catering facilities, the possibility of having several different groups working parallel to each other, and the possibility of using flipcharts;
- At the same time, avoiding locations that are found, via a prior scouting, to be unsuitable (for example, when it is not possible to use a projector, a location that is too noisy, etc.) or that may make one or more types of participants uncomfortable, for example, university amphitheatres which may induce feelings of inferiority in farmers or meetings rooms with a podium more suitable for a lecture than for an active participation among equals;
- Let various partner institutions host the training session in turns to give each of them an opportunity to appropriate the training approach;
- With a little imagination, flexibility, and opportunism, every location can be used for training purposes as long as it has – or there can be created – some minimal suitable conditions. A bus trip, a restaurant room, or the shade of a tree can be found to be suitable locations because that is where the “training” happens to be take place.



When to train?

Finding time for training depends, of course, on the limitations and the availability of participants. Major factors here are the agricultural seasons and calendars, determining factors for the work schedules of the farmers, technicians, and researchers. Training schedules depend also, of course, on the dynamics of the ARP's cycles and calendar.

It may also be worthwhile when using some training aids, such as farmers' fields or agronomic trials, to consider the possibility of subsequent rapid application of the knowledge or skills acquired during the training before they fade with time.

Combining training modes

Depending on particular participants' requirements, we can combine various training modalities: degree-based and/or professional training, very short term or over a long period, with short or long individual sessions, specific or broad-based, alternating, etc.

Choosing trainers

Trainers should be identified based on their area of expertise and in accordance with the results expected to be achieved through training. In the launch phase, it may be advisable to call on "external" trainers, with recognized ARP skills and knowledge, to clarify concepts and principles and to illustrate their application by various real-world examples.

In the implementation phase, there is a shift towards reliance on skills identified within the ARP collective for conducting specific training, for example, on the use and mastery of a particular tool.

Formalizing the training capacity within the collective

To avoid having to take ad hoc decisions, the ARP collective can, in some cases, constitute an internal education/training committee. This committee would then be in charge of implementing the training plan over the duration of the project and would work towards developing in-house training self-sufficiency.

In this way, the members can gradually become trainers in their own right, capable of conducting "routine" training activities. Specialized or strategic themes would, for their part, be left to external trainers, a costly but indispensable necessity.



Formation of such a committee is particularly justified in projects of a certain size, involving a large number of partners, or of a lengthy duration. For such projects, training activities are an important issue and involve considerable effort.

It seems pertinent to note that these operational decisions, though of minor importance at first sight, are never insignificant. Depending on the way they are taken, they contribute to a greater or lesser degree to the collective's cohesiveness, to its effectiveness, and, finally, to the ARP's objectives (see Part 2).

Pedagogical approach

All ARP training activities, initial or ongoing, are a form of adult education, requiring skills specific to that domain. Without going into the details, we focus on three essential points: defining a suitable pedagogical scheme, respecting the three key moments in any training activity, and documenting the training and its process.

▮ Suitable pedagogy

The concept of suitable pedagogy refers to the adult education strategy of involving the persons “undergoing training” as much as possible. Various modalities can be planned, in particular individual or group work, presentations, discussions or debates in plenary session, exercises in analyzing an existing situation or in coming up with a new one, foresight and simulation, presentations in conventional or novel form (theater, sociodrama, art, etc.) and/or in informal and convivial settings (around a meal, discussions during outings, etc.).

When the ARP collective does not have the requisite skills itself, it should mobilize persons whose profession is adult education and who have experience in developing training sessions for varied audiences.

To ensure that the training is compatible with an ARP approach and conforms to its principles (see Part 1), we should take heed of the following:

- Joint construction with the participants of, or at least discussions with them on, the contents and form of the training. The initial issues that requires agreement are often the flexibility of the schedule and the continuous fine-tuning of the activities. The aim should always be to optimize these encounters so that they become true opportunities for cross-learning between participants with varied skills;



- Use of pedagogical modalities that optimize interactions and allow expression of the key ARP values, including the ethical ones;
- Managing a training often destined for a heterogeneous audience (a given for any ARP collective). This raises logistical and pedagogical challenges, for example, in finding ways for participants to understand and talk to each other, in defining the minimum level of comprehension of concepts to aim for, and in identifying modalities which will sustain the interest of such an assorted public.

Box 24 illustrates the diversity of the audience and the various expectations of an ARP collective's members that may be encountered.

As far as pedagogical modalities are concerned, it may seem superfluous to mention the benefits of using a computer to project images and text. Used to good effect, the computer is an unequaled tool for presenting results of group work, of synthetic reports, of explanatory diagrams and drawings, as well as for discussing ideas and giving shape to them. It holds everyone's attention and allows them to work simultaneously.

That said, the computer can also act as a hindrance to collective work since it is a communications tool that is difficult to master. And often what it projects take precedence over the participation of all attendees.

■ Organizing training: three key stages

Any training activity becomes more effective if it is conceived as a three-stage process: before, during, and after – similar to the organization of meetings and exchange visits (see Chapter 10, “Managing collectives,” page 133).

Very often, the organizers focus most of their effort on only the “during.” The “before” is, for them, only for logistical arrangements, and the “after” only draws cursory interest.

Experience has, however, shown time and time again that the “before” is of strategic importance. It is then that thought must be given to inserting the training into the ARP project and approach, and to the ways it can help strengthen the ARP collective. It is also the time to consider the relationships between external contributions on the one hand, and the participants' experience, professional background, skills and knowledge, on the other. It is also the time to think about the desired goals.



Box 24. Diversity of personal profiles that an ARP training has to accommodate

The target audience of an ARP training is diverse and has varied expectations of it. For example:

- The “beginner” who knows nothing and who wants an “ARP for dummies” type of training;
- The practitioner of development-research activities who wants to move towards ARP;
- The member of an ARP project, who wants to capitalize on the approach’s results and wants to write scientific articles, or who wants to fill some gaps in his or her knowledge, for example, to be able to communicate better with partners in the ARP collective and be more effective in teamwork;
- The farmers’ representative who wants to be able to discuss and negotiate with scientists and engineers;
- The technician who interfaces between a farmer organization and a plant breeder-researcher. In spite of considerable experience in managing groups and leading teams, this person dreads any writing task (including that of a simple invitation to a meeting!) and wants to learn something about plant physiology so that he or she can interact with researchers on a better footing;
- The plant breeder, competent and much in demand by the farmers, who love to talk to them, but is not capable of organizing and managing a meeting;
- The young graduate who learnt about participatory approaches during her studies but who, now employed to assist an ARP project, fears she may not be up to it.

Also, it is then that we start discussing the questions that will guide the training as it progresses. As Confucius said, “I do not want to know the answer; I want to know the question.”

The “before” is the time to establish the terms of reference and to clarify the demand and supply. Some training plans never take off, not because of lack of funding but because a true demand is lacking. It is also at this time that the future participants respond to requests by the trainer (for example, writing down their professional experiences, and reading reference texts). This way, they arrive “prepared” at the training session and with a willingness to learn and question.

The “during” has already been covered. It may be added that an attempt should be made whenever possible to involve participants, to encourage them to ask questions such as “How can we...?” And rather than provide readymade solutions and suggestions – which, however



relevant, are often ignored – an effort must be made to guide them and assist them in finding their own solutions.

As an illustrative example, Box 25 describes a training workshop organized in Brazil (see Chapter 7, “Introducing action research rooted in partnership: the Unai project in Brazil,” page 97).

Box 25. Role of participants in a diagnosis within the Unai project in Brazil

Using a training-and-reflection framework, research teams of the Unai project wanted to improve the effectiveness of using thematic focus groups in the project. To do this, they had to first study and diagnose these focus groups’ current functioning.

In a conventional training scheme, trainers would have prepared a form to characterize the different focus groups concerned and would have asked participants to fill it in. In this case, with training conducted in the framework of an ARP approach, trainers chose to ask the participants themselves to define the criteria for constructing the form, and only then to fill it in.

In addition, they asked participants to work in groups by type of stakeholder – researchers, technicians, and farmer representatives – with each group doing the same task.

The plenary session was witness to a rich and varied discussion, not only on the choice of criteria by the various teams but also on their relative classifications of the focus groups.

Finally, the “after” of a training period is also strategically important. Even though assessing the suitability and effectiveness of the skills imparted in relation to the stated goals and the identification of any additional training to conduct or themes to cover may be useful, the focus should not be on evaluating the training as a standalone activity.

What *is* important about the “after” is, above all, to convert the training into an action plan: How to insert the skills acquired and knowledge gained during the training into each participant’s professional practice? In fact, some ARP trainers start constructing the pedagogical plan by outlining the “after,” i.e., the action plan.

▮ Suitable documentation

Suitable and speedy documentation of the training activities is useful. To begin with, it allows participants to recall what they have discovered, learnt, and constructed. Moreover, such capitalization of the exchange of experiences and learning can be referred to whenever needed, for example, at the time of inducting new members into



the ARP collective, during the period for monitoring and evaluating activities and ARP cycles (see Part 4), or during periods set aside for reflexivity.

The documentation itself can take several forms, ranging from conventional summary reports to more original ones: audiovisual report, oral accounts, or posters.

Even though the organizers usually take responsibility for documenting the training activities, it may be useful to also ask participants to produce their own reports of what they have learnt. This reciprocal assessment of what was accomplished contributes to a greater responsibility for and appropriation of the subject matter by the participants.

Structuring the initial training

Organized at the start of the ARP approach, the initial training covers general ARP principles. On the one hand, it helps participants find out what makes an ARP, to learn its concepts, approaches, and methods, and helps prepare them to implement it. On the other hand, it harmonizes the information that participants have and creates a common frame of reference.

While acknowledging that there is no standard content for training in ARP, we can mention some topics that have to be covered if the training is to be solid and methodological. Table 3 lists them in no particular order of importance. It should come as no surprise that most of these points relate to topics covered in the previous chapters.

Two contrasting pedagogical directions can be taken in introducing the topic of ARP during the initial training depending on whether the focus is on breaking old paradigms or on adding to or building on knowledge already acquired by the participants.

In the first case, ARP is immediately and unequivocally presented as a special modality for transforming real lives and for knowledge production. From the first, participants are introduced to an approach very different from what they are used to and which challenges them.

In such a scheme, rather than systematically contrast the ARP approach with the participants' experiences, we focus on the concept of the values that underlie the approach, such as autonomy and shared responsibility, equality and respect for all identities, solidarity, and the clash of ideas and practices.



Table 3. Fundamental topics to cover in an initial training in action research in partnership (ARP)

1. Identification and appraisal of the existing skills of the participants that will be useful in the ARP via analysis of existing practices and the participants' experience with teamwork, in innovation development, and in participatory approaches, etc.
2. Principles and basic concepts of the ARP: <ul style="list-style-type: none"> – Origin and definition – Ethical aspects, and attitudes and values that underlie the ARP – ARP stages and cycles, general aspects of the process of innovation – Governance of an ARP, ARP set-ups, steering, and monitoring and evaluation – An ARP's results – Principles for negotiation between stakeholders, and for co-construction – Reflexivity – Power relationships, asymmetries between stakeholders, imparting autonomy
3. Involvement of different stakeholders (farmers, farmer organizations, researchers, etc.) in ARP set-ups and its specifics
4. Joint planning of a cycle or standalone activities
5. Collegial experimentation: planning, implementation, evaluation, systemization
6. Managing communications in an ARP
7. Participatory methods, techniques, and tools, in particular: <ul style="list-style-type: none"> – Participatory diagnosis – Organization and facilitation of meetings, workshops, and exchange days and visits – Training and functioning of farmers' groups – Modalities for negotiation, management, and conflict resolution – Undertaking reflexivity

This pedagogical modality, perhaps unsettling to the participants, is especially suitable when they have already developed a strong desire to be part of an ARP.

The second scheme relies on the participants' experiences, their educational and professional backgrounds, and their concerns. It helps them in their quest for a new way of functioning and for establishing relationships with other stakeholders for solving the problems confronting them, just like the ARP proposes.

The prior appraisal of the participants' skills, background, and experiences (see point 1, Table 3) pinpoints with accuracy what is known and



what is not. In this way, topics to be covered – and the order in which they should be – are identified. In this scheme, including a field visit within the context of an existing initiative becomes a cornerstone of the training. This modality has the advantage of being reassuring to the participants but requires the ability to compare the ARP to the participants' past experiences.

Box 26 shows how these two modalities were implemented in two initial-training workshops, one organized in Mali in October 2006, the other in Guinea in February 2008 (Triomphe *et al.*, 2009). As can be seen, both modalities can also be combined during a single workshop.

Many ARP collectives seem to prefer a high-density initial training, of short duration, such as a workshop of a few days for some twenty participants.

However, other forms of initial training may be more suitable in some situations or particular configurations of the ARP collective: for example, regular study circles or remote learning via the Internet.

Structuring ongoing training

The initial training in ARP plays an essential role in sharing key concepts and helping develop a collective dynamic. Nevertheless, it cannot fulfill all the training requirements of implementing an ARP. New training needs often arise during the project, mainly depending on results obtained (see Figure 8 and Part 2).

Box 26. Two examples of initial training in action research in partnership

Two workshops, one in Mali in October 2006, the other in Guinea in February 2008, had the same overall objective: introducing ARP concepts and preparing their implementation in innovation projects with the stakeholders. Both were destined for the same type of audience: researchers and representatives of development projects and farmer associations. All participants had had at least some experience with “participatory research.” The participants belonged to teams involved in development-research projects. Each workshop's program had been decided upon by an organizing committee consisting of representatives of national project teams and ARP specialists from outside the countries concerned.

The two programs proposed a succession of stages each corresponding to one or more sessions, ranging in duration from a half a day to a day and a half.

...



Périod	Mali Scheme 1: breaking with the old	Guinée Scheme 2: Valorizing and building on acquired knowledge
Stage 0	Introduction of the participants, presentation of their expectations, the goals of the workshop; definition of important terms: innovation, partnership, etc.	
Stage 1	Presentation of the ARP as a suitable modality for bringing about changes and discussions – Presentation of the four development-research projects of the participants	Appraisal of participatory research conducted by the participants, examples of novel approaches – Reading and analysis of ARP texts
Stage 2	Presentation on implementing an ARP and discussions – Presentation on implementation aspects in the four projects	Major principles of an ARP – ARP's contribution to solving problems identified during the appraisal in stage 1
Stage 3	Presentations on steering and guiding in the four projects – Presentation on steering an ARP and discussions	Field visits to compare concepts and practices (preparation, conduct, appraisal)
Stage 4	Presentation on evaluation in the four projects and discussions – Presentation on evaluation as an important aspect of an ARP and discussions	Presentation and enriching of the four Guinean research projects on the basis of discussions of the previous few days
Stage 5	Various additional concepts, based on participants' questions – Presentation of diverse experiences with participatory approaches	Planning for the subsequent year for each project, by insisting on the taking into account in the project activities of ARP aspects and principles discussed in the training and judged especially useful
Stage 6	Summary, evaluation, and future stages	

II) General and specific training requirements

Of course, one can take a chance and hope to manage without having to organize training for every conceivable topic related to the ARP. However, the previous chapters have shown the importance of offering



training on several topics that are essential to an ARP's success. These include:

- Conflict management;
- Managing financial compensations in the functioning of organizational mechanisms;
- Ethics and ARP values;
- Leading and managing debates;
- Construction of a common language;
- Construction of a dialog;
- Training in maieutics;
- Identifying cause-and-effect relationships;
- “Failure” analysis;
- Communications tools and methods;
- Elementary knowledge, most notably in basic mathematics because, for example, the units the farmers use to measure surface areas, volumes, and time are not the same that technicians use, maybe not even the same as used by other farmer communities.

This list is not exhaustive and includes topics already suggested for the initial training, with the significant difference that in an ongoing training it is the topics arising while implementing the ARP that are central to the training and reflexivity.

Training unrelated directly to ARP can also find a place in an ARP approach. We can thus be confronted, like in any project, by requirements for training in subjects such as:

- Use of specific tools such as databases, geographic information systems, or modeling systems;
- Design and implementation of operational set-ups;
- Negotiation of test and experimentation protocols combining tests in controlled conditions and tests conducted by a network of farmers;
- Last but not least, knowledge and skills relating to the technical domain of the problem at hand, for example, varietal selection, management of irrigated systems, design of new cropping systems, livestock feeding, commercialization of produce, “whole-farm” advice, or access to credit.

These points are beyond the scope of this book on the ARP approach and will not be covered here. It is worth emphasizing that a lack of mastery or technical skills in a particular area on the part of the ARP collective can compromise the quality of results – and its legitimacy in the eyes of some stakeholders – and can thus impact the success of the ARP approach.



■ Use of reflexivity as a learning modality

Apart from training in the themes mentioned above, one of the most fundamental needs – but one most difficult to fulfill – is training in reflexivity on the collective's practices, i.e., in self-analysis during the course of the ARP. For more details on how this can be done, refer to work done by Verspieren at University of Lille, France (<http://cueep.univ-lille1.fr/transformations>, in French), or that of Robo (<http://probo.free.fr/>, in French).

For an ARP approach to succeed, it is not enough to know the reference concepts, to put organizational set-ups in place, and to master the tools used. Of course, learning while doing is in itself very effective and the errors committed are a fertile source of learning. But the learning does not necessarily happen spontaneously.

Organized reflexive analysis is conducive to individual and collective learning and facilitates reflection reflecting on process governance (see Chapter 8, page 107). This analysis is structured around the question, “What makes it work, what does not?”

The analysis is based on comparing the results obtained with the stated objectives. It leads to a re-examination and reworking of the initial questions and hypotheses. It also examines the way ARP activities are conducted and the lessons the collective learns from them.

More than the reasons for simple success or failure, it is an investigation of why an activity succeeds in one village or with one group of partners but not in another that is the key to reproducing the observed success, to avoiding future failures, to extrapolating the success, and even to changing its scale. This investigation requires detailed description of the activities carried out and professional situations that are causing problems. It also requires an analysis on the basis of hypotheses about the causes. The temptation to offer quick advice or recommendations needs to be avoided.

The ability of an ARP collective to conduct a meaningful reflexive analysis depends partly on its ability to put into practice the principles and attitudes listed in Box 27 – whose usefulness, of course, extends far beyond their contribution to reflexivity.

**Box 27. Key principles and attitudes for conducting reflexivity**

- Being able to listen to and respect others
- Being able to “read,” including between the lines when the participants are well-read
- Being able to “write” or being able to call on those who can
- Being able to challenge oneself
- Being always willing to progress
- Being able to put oneself in others’ shoes
- Being able to report back results and findings
- Being able to step aside and let others step up
- Trying to know oneself and the others, one’s and their strengths and assets, limitations and gray areas.

Reflexivity ought not to be limited to a summary analysis at the end of a year, of a project cycle, or of an agricultural season. It can be beneficially undertaken at the end of any short-duration activity, at the end of a working meeting of two hours, for example, with the participants asking themselves what transpired during the session or activity and what they have learnt about their way of working.

Without making it into a routine – which would cause it to lose all meaning – sessions can therefore be organized to analyze the processes of several activities. All the people involved in an ARP process must conduct these analyses; they must not become the prerogative of only one type of stakeholder, usually that of the researchers.



15. Funding an action research in partnership: strategies and practices

B. Triomphe and H. Hocdé

What is special about budgeting for an action research in partnership (ARP)? How to finance an ARP? These questions are not only practical but also have a strategic dimension: a lack or shortfall of funding or an improperly thought out approach to funding can imperil the smooth progress of an ARP.

Specific expenses to consider

An ARP's budget includes conventional items and items specific to it. The conventional expenses include the costs directly related to the activities such as those of surveys, experiments, personnel wages, transport, lodging, publication, administration, and management.

The specific costs concern activities and mechanisms of consultation and cooperation. These are major expense headings. In fact, the frequency of such activities depends on the number of partners involved in taking decisions or in the actions.

In practical terms, these are the expenses:

- Costs of negotiations relating to the design and construction of the project and the exploratory phase, involving meetings between the future project partners;
- Operating costs of the coordination, steering, and monitoring and evaluation mechanisms, which involve, amongst others, committee meetings at different governance levels (see Part 3) and field visits.

It is also recommended to plan funding for some stakeholders with limited resources, such as farmers or representatives of farmers' organizations and some extension and outreach services. This will allow them to, for example, participate in the project's steering mechanisms (see Box 28).



Box 28. The headache of daily allowances and other compensations

The issue of daily allowances and other financial compensation for ARP stakeholders for participating in various governance authorities and activities (steering, training, monitoring and evaluation, etc.) will quickly arise. A suitable solution will have to be found to avoid discontent and tensions. Left too long unresolved, this issue can threaten the ARP's ethical framework and derail its overall approach.

Unfortunately, there is no easy answer. Different ARP activities can give rise to different arrangements for levels of compensation (how much?) and allocation criteria (to who and for what?). These have to be based on negotiations conducted in steering committees and on the general context in which the collective is operating.

In any case, it is vitally important to estimate these costs in a realistic manner by distinguishing between budgetary provisions, conditional allocations which are only disbursed depending on certain rules, and definitive allocation of sums.

Workshops for reflexive analysis, for annual planning of activities, and for the presentation and discussion of results between the various partners also entail expenses.

Costs of internal communications to keep members of the ARP collective informed have also to be taken into account. As do external communications costs to keep partner institutions in particular and the external world in general up to date on ARP activities and results (see Part 3).

In many contexts, it can mean the acquisition and distribution of suitable communications tools, such as mobile phones to partners. Internet access may also have to be arranged.

Training costs have also to be taken into account (see Chapter 14, "Training for action research in partnership: strategies, content, and modalities"). Finally, some other expenses can also arise, for example, in connection with official registration of the groups or associations formed within the framework of the ARP approach, for protecting intellectual property, for creating a special fund for innovation, or for documenting participant experiences.

In general, it is a matter of anticipating and including in an ARP's budget all expenses consistent with the stated objectives and planned activities. It must not be forgotten, however, that every ARP is subject to substantial improvisation and adaptation along the way and these will all have budgetary implications (see Part 2).



Detailed and realistic identification of expenses is also essential because not all of them will necessarily be accepted by the funding entities at first glance. One must be prepared to defend such expenses and negotiate their acceptance one way or another.

Constructing a multi-source funding strategy

Funding an ARP approach of a certain duration requires a dynamic strategic vision of funding requirements. Sometimes, we are fortunate in finding a single funding entity, committed to supporting the approach over its entire duration. But more often, usually in view of the several successive cycles of the approach, financing arrangements have to be divided between various sponsors, funding agencies, and other mechanisms (see Part 2).

Three funding modalities are important to draw up a “necessary and sufficient” ARP budget: external funding, resources of the partner institutions, and, resources that can be mobilized by the participants.

▮ Working with a funding entity or agency

A funding entity or agency can be willing to finance an ARP project based on a normal call for development or research proposals or following an unsolicited application from the ARP proponents. The offer can also originate from the funding entity, directly addressed to the ARP proponents.

Limitations and modalities to be considered

Requests for funding an ARP approach encounter specific difficulties and challenges.

For one, funding entities normally finance projects of limited duration (from two to four years) whereas an ARP may take longer to bring about the institutional changes that may be part of its objectives.

One way of overcoming this limitation is to include – in the future – the establishment of mechanisms for ensuring the proper functioning the processes promoted by the ARP as part of the major project objectives. This allows the proponents to put objectives about short-term results in perspective: the latter are typically described in terms of number of beneficiaries, types of results, degree of adoption of innovations, etc., – and funding entities like to read about them in project-funding proposals. This makes it easy, when the time comes, to justify a request for a second phase of funding.



Many funding entities require a detailed schedule of activities over several years to be laid down, and even their exact expected impact (following the well-known logical framework approach), whereas an ARP approach by its very nature only takes firm shape as it goes along and depends on constant discussions and negotiations. Moreover, it is not unheard of for an ARP project to make mid-course corrections resulting from adjustments in its objectives or priorities decided upon by the participants.

A solution can be to present one or more likely scenarios spanning the entire duration, with the proviso that changes may take place and thus a certain flexibility is required in the planning. Another solution consists of emphasizing the objectives relating to the ARP process itself, such as capacity building or creation of partnerships between stakeholders.

Finally, it may be strategically important, before giving final shape to the project, to hold a multi-partner workshop on how to set the project up. The funding entity or other participating institutions will then have to be convinced to make resources available to finance it.

In fact, such a workshop will also help clarify the positions of some participants and it will help put negotiations and some aspects of co-construction which are essential to the project's success (including objectives, governance, and the distribution of roles, see Parts 2 and 3) on a sound footing.

It hardly needs saying that, in general, involving a funding entity in the design of the project will substantially improve an ARP team's chances of successful funding. It will also allow the funding entity's representatives to understand why an ARP approach is distinctive and how this translates into ways of functioning and of funding.

Conversely, it will allow the ARP project's proponents to find the most suitable ways of fitting the project into the funding entity's overall strategy or even enroll its representative(s) into the ARP collective.

Responding to a request for proposals

All field work requires funding, often obtained by responding to requests for proposals. Even though ARP approaches do not yet enjoy widespread recognition, it is fortunately becoming increasingly common for requests for proposals to be open to ARP approaches.



In such conditions, there are two challenges for the ARP proponents: identifying requests for proposals with terms of reference compatible with the exigencies and distinctiveness of an ARP and to get an idea of the funding entity's opinion of these types of approaches.

Some key words and phrases in the requests for proposals often indicate the acceptability of an ARP approach. Apart from direct mention of action research or intervention research, any reference to a requirement for a partnership between researchers and users or for implementing participatory approaches, or an invitation to propose responses based on user requirements, can be considered favorable indicators. The presence of these phrases does not, of course, guarantee the eligibility of an ARP project; it could be disqualified or passed over on other, more conventional, criteria.

It may be wise, at least in certain cases, to avoid emphasizing the ARP aspects of the proposed project. It is understandable that some funding entities are not keen on financing qualitative processes with vague evaluation criteria and with unpredictable future courses of action and results (see Parts 3 and 4).

The project proponents should not hesitate to contact the persons in charge of the request for proposals to better understand the spirit behind their request and their expectations and to ask their advice on the best way of presenting the ARP approach.

■ Mobilizing multiple funding sources

With diversified funding sources, the project gains some financial autonomy. In this way, one funding entity can pay for expenses that another cannot, for example, when the latter's internal rules do not allow it to fund some sort of activity or expense, such as compensating an ARP partner. Work on the project can continue when funding from one source ends or if a funding entity unexpectedly stops or delays the funding.

Responding to multiple proposals

A common solution is to respond to several requests for proposals at the same time or as and when the need arises by asking each funding entity to be responsible for financing a clearly defined portion of the overall project.



It must not be forgotten, however, that the costs of managing a project with multi-source funding can rise very rapidly, most notably from the numerous reports that have to be submitted to the different authorities and the multiplicity of administrative, planning, and monitoring and evaluation requirements to meet.

Making good use of the partners' internal-financing abilities

Accessing co-funding from participating institutions is often an excellent strategy, especially when these institutions have their own funding systems. These funds can be used for the initial negotiations, organizing certain events before or during the project, making up budgetary shortfalls of the primary funding entities for certain expenses like expert consultations, a workshop, or a student-intern's stipend.

Some institutions, especially from the poorest countries, are clearly less able to fund such activities. Nevertheless, they are often in a position to assign their personnel, whose wages are already being paid, or to make available to the project other resources, for example, a vehicle bought on a different budget, an office, a laboratory, or simply a test plot.

The farmers themselves are often able to make in-kind contributions: their time, plots, animals, etc. However, we should not overestimate their ability to invest time and resources into a project, even an ARP project, without getting anything in return.

Finally, we should not ignore the possibility of some partners conducting activities which may help self-finance the project, even if there may be some difficulties in this approach. For example, a farmer organization may decide to plant a crop for commercial purposes and use the proceeds from sales to co-fund its participation in an ARP project.

Not only does co-funding have benefits for an ARP collective but it also encourages the appropriation of the approach by the project partners ("He who finances, participates!"). Co-funding also minimizes risks of dependence and of paternalism. The ability of the various stakeholders to contribute financially can also be taken as an indirect indicator of the potential for success of an ARP project.



Conclusion

In this section the key aspects for successful implementation of an ARP training and funding have been introduced.

Training for ARP should be part of activities planned for and implemented at the beginning of the project. Subsequent training should take place regularly depending on the need. Training should not be limited to a few isolated workshops; it has to be an ongoing activity throughout the ARP process. This is especially true when we use reflexive analysis as a method of learning, with the goal of building stakeholder autonomy.

Funding an ARP requires a well thought-out strategy. Very often, the initial phases are funded via earlier projects or the contributions of some institutions. For the project as a whole, recourse to more substantial funding is necessary.

The ARP can be funded like other research or development projects. However, funding sources should be chosen ensuring that ARP-specific costs are acceptable to them.

Even if we make optimum use of the human, material, and organizational resources made available by the ARP partners, there is no escaping the fact that an ARP is resource-intensive, especially in the aspects of training, communications, and meetings and exchanges. The financial planning phase provides a good opportunity for the discussing commitments and responsibilities of all the participants.



General conclusions

This book presents a conceptual and methodological frame of reference for implementing an action research in partnership (ARP). This frame of reference helps better understand the conditions in which such an approach succeeds, the challenges to be met, and the ways to overcome them.

We summarize here the most important points discussed in this book, highlight unresolved issues, and suggest some perspectives to further enrich the reflection and practices linked to ARP.

We wish to recall four fundamental points. First, ARP lays no claims to being able to resolve all issues of research for development. It finds its justification rather in very specific situations and conditions, and has no pretensions of replacing other forms of research whose implementation is often justified and necessary.

Second, the book only addresses the key issues that arise while implementing an ARP approach. And it provides solutions to only some of them. Rather, it encourages the readers to deepen their thinking through additional reading and other experiences, to remain open to other methodological currents, and thus to develop their own approaches.

Thirdly, even though the ARP approach appears unique, it borrows extensively from the practices and knowhow of other approaches to research and development engineering.

Finally, it is also by action that we learn, by the self-analysis of one's own practices.

Main lessons

■ Part 1. Foundations of action research in partnership

Action research has a long history even though its application in the domain of rural development is relatively recent. Even though it is not the same as systems research or development research, it does have important links with these approaches.



There exists a diversity of action-research types depending on the perception of the actors of social change and of the degree of stakeholder participation in the research.

Fresh questions that civil society has regarding agricultural research justify the ARP approach. These questions relate to the processes of innovation that meet the requirements of the stakeholders concerned. ARP also justifies its existence by the recognition of the fact that scientists' knowledge is not neutral and that all implicated stakeholders possess knowledge and expertise that can help resolve these questions. Finally, it is justified by an essential need for effectiveness. In fact, the handling of complex scientific issues presupposes a shared and negotiated definition of problems and solutions.

Every ARP is required to reinvent specific instances of an approach based on the following principles:

- Incorporate the research into the action;
- Produce contextualized knowledge;
- Build together;
- Recognize others' knowledge and develop a common language;
- Adopt a framework of shared values;
- Undertake an iterative process, based on reflexive analysis.

An ARP has three distinct phases: a launch or start phase, a resolution phase, and a disengagement phase. The launch phase involves, in a concomitant manner, conducting an initial diagnosis, constructing a problem-set, and putting together a stakeholder-group.

In the resolution phase, the actors draw up hypotheses, identify the solutions, plan and then undertake activities. Finally, they analyze and evaluate the results. This sequence can be repeated in as many cycles as necessary to solve the problem at hand.

The disengagement phase brings the ARP to a close. This happens when the objectives have been met and the stakeholders become autonomous *via-à-vis* the support provided.

However, an ARP is rarely a smoothly flowing river; its course is often rather unpredictable.

▮ Part 2. First steps to an action research in partnership

The formation of the ARP's collective is a critical stage. It depends heavily on the definition of the problem and influences the collective's ability to solve it.



The representativeness, legitimacy, and skills of the stakeholders have to be taken into consideration. In addition, it must be realized that the history of their relationships, the power dynamics between them, and their apparent or hidden motivations are also important determinants.

The formation of a collective not only requires time and listening skills, but also the implementation of practices that facilitate dialog and help kick start the first concrete actions.

The functioning of an ARP collective highlights the necessity of sharing common values while recognizing the inevitable differences. It is important then to know how to manage asymmetries, most notably between social groups and between researchers and other stakeholders, relating to material and non-material resources. This can be done by instilling trust, by relying on rules, and by mobilizing acknowledged mediators.

In this context, information management and the ownership of results becomes a touchy subject. The researcher has a specific function in this collective, which implies maintaining a difficult balance between engagement in the action and the detachment necessary to conduct his or her own analysis.

■ Part 3. Making action research in partnership work

An ARP's governance system should be designed to allow all the stakeholders to participate in the decision-making process. It should be based on:

- A shared ethical framework which defines not only the main objectives, but also the precise rules for the use of the results;
- Diverse governance mechanisms (steering committee, scientific committee, local committee) that can plan the activities and evaluate the results at different levels (local vs. global, scientific vs. operational);
- Formalized rules of functioning, relying, for example, on a work plan or codified specifications.

An ARP cannot be set up by following ready-made recipes. In fact, a broad variety of tools, some of them complex, are required to do so. These tools are usually already in use in other research approaches or for supporting stakeholders. It is the way that they are used that is original: all the stakeholders are involved in their design and use, within the framework of a learning process for mastering them and for valorizing the results produced.

Proper management of inter-participant communication is fundamental to the success of an ARP. It fosters better reciprocal knowledge



among participants, ensures that they are kept informed about activities, facilitates the monitoring of tasks, and clarifies decision making.

Communication with the outside world is equally crucial. Likewise, facilitation and mediation functions are central to the ARP's success, and can be realized with the help of meetings and exchanges that allow the genuine participation of all. Their mastery, however, requires the development of specific skills.

▮ Part 4. Results and monitoring/evaluation

ARP results are diverse. The ARP leads to the generation of new knowledge whose scientific validation requires specific criteria and whose generic aspect is established for situations that can be considered similar. It then allows the resolution of the problem indicated by the stakeholders, by encouraging technical, organizational, and institutional innovations. Finally, it contributes to the strengthening of the individual and collective skills of the stakeholders, leading them to greater autonomy with respect to external support and assistance

The evaluation of an ARP's results is not straightforward since the stakeholders' objectives can be explicit or implicit, intentional or unintentional. Moreover, their objectives change over time depending on intermediate results.

The monitoring and evaluation process allows better control of the ARP by the stakeholders and becomes part of the brief of the governance bodies. It also allows the measurement of the ARP's results within a framework of self-assessment where the stakeholders define their own evaluation criteria. This evaluation is part of a larger ongoing process, specific to the ARP and called "reflexivity," whose aim it is to understand and justify choices made at each stage.

▮ Part 5. Operational considerations

Training in ARP takes place at the beginning of the approach so that stakeholders can acquire a basic frame of reference. It continues during the process, depending on the themes covered and the participants' needs.

Training covers many thematic aspects, ranging from concepts to specialized tools. While thematic workshops play a key role, training can only be considered meaningful when designed as a permanent activity. It encourages the participants to consider reflexivity on their practices as a part of the learning process. Thus implemented, the



training contributes to strengthening the participants' capacities and eventually their autonomy.

Proper funding of an ARP approach remains a challenge. Planning an ARP requires careful and discerning choices in identifying the proper call for tenders and funding sources so that the specificities of the approach and corresponding costs can be taken into account.

It is necessary to estimate and negotiate costs between partners in an accurate manner from the very beginning. The ARP can also be jointly funded and draw on the human, material, and financial resources of the various partners. On the whole, the ARP is resource intensive, particularly in the aspects of training, communications, and exchanges.

Unresolved questions and perspectives

This book does not pretend to address all the methodological and operational questions raised by ARP. Indeed, the practitioners of ARP continue to reflect on some aspects that have not been sufficiently addressed:

- To what extent is an ARP possible in situations where marked asymmetries between stakeholders can engender intentional or unintentional manipulations?
- To what extent is an ARP possible in inflexible political, cultural, or institutional contexts, whose values and ways of functioning can sometimes be contrary to the “ARP spirit”?
- How do and can governance and operational mechanisms and set-ups cope with the unexpected?
- How can the impact of ARP on knowledge, resources, actors, or local dynamics be assessed beyond the evaluation of actual results?
- Should specialist ARP teams be created within institutions, as was done – with mixed results – for the “systems” teams in the 1980s, or, can a wider distribution of ARP skills be promoted in the teams implementing a broad range of research approaches?

The argument for continuing collective reflections is therefore strong. These should take the form of the creation or consolidation of networks for sharing experiences, and should be based on the accumulated analyses of cases which are likely to improve knowledge bases and practices. The editors can but encourage readers to adventure into these uncharted waters.



Glossary

Learning: process of acquiring knowledge, know-how, and skills by observation, exchanges between individuals, and by practical application.

Asymmetry: difference between two or more types of stakeholders in terms of material resources (for example, capital and land) or cognitive resources (for example, knowledge, access to information, and the ability to express oneself or to formulate a problem) or in terms of power (ability to decide or to influence).

Workshop: a working group constituted around an activity or a topic.

Autonomy: capacity of stakeholders to solve a problem that confronts them without depending on external support; these capacities can be acquired or built up by using an ARP process.

Specifications: the set of definitions, normally in written form, that characterize and specify how to proceed to design or produce a benefit or an innovation, to conduct an activity or a project.

Social capital: the set of social relationships developed by an individual or a social group which allow the individual or group to attain their own goals or which facilitates the coordination of actions for attaining common goals.

Charter: the set of principles that define, normally in written form, the commitments and responsibilities of individuals and organizations for undertaking a common project.

Expertise: knowledge, know-how, and people skills applied and acquired in a professional framework.

Constructivism: scientific paradigm that assumes the progressive construction of the object under study and which also puts the individual squarely in the center of the construction of the real. This situation is considered a social construction of reality. Constructivism is often contrasted with positivist science which attempts to predict and control nature.

Contract: formal or informal agreement between two or more parties who establish the rules that govern the relationships between the parties and specifies the obligations of and benefits to each of them.

Coordination: harmonization of various activities between stakeholders, based on unwritten rules and which may not necessarily be defined by any particular authority, and which can apply to formal and informal contracts, in pursuit of effectiveness or harmonious relations.

Crisis: instant of high tension in the life of a collective or during the progress of an activity, manifested by difficulties in implementing (or continuing to implement) planned activities and which can lead to stakeholder commitments vis-à-vis each other or vis-à-vis the joint project being called into question.

Cycle: sequence of phenomena or actions repeated periodically in the same or similar order.

Approach: set of principles to implement to attain a goal, necessitating the construction or adaptation of tools, methods, and operational mechanisms, in a specific and custom way



for responding to a problem identified by the stakeholders.

Diffusionism: anthropological school of thought of the beginning of the 20th century, which proposed that culture and cultural items are spread from a small number of regions of the world. By extension, any thinking that professes that knowledge and techniques can be spread from one individual to another without major modifications.

Effectiveness: measurement of the difference between the stated objectives of stakeholders in the context of a program or project and the results actually attained, by evaluating the reasons for these differences.

Efficiency: measurement of results obtained by stakeholders in the context of a program or project with respect to the resources employed, by evaluating the cost/benefit ratio.

Empowerment: building individual or collective capacities for stakeholder autonomy in taking decisions and a reduction in asymmetries.

Epistemology: domain of the philosophy of science which studies either specific sciences or the production of scientific knowledge in general.

Ethics: domain of philosophy which addresses morality and questions what is good, what is not, and how to conduct oneself in action; in a given context, ethics define what a social group or professional means by “doing good” and the behavioral framework it or he wants to adopt.

Ex-post evaluation: determination of results, performance, or impacts of activities of a project or program; this evaluation is conducted by actors *external* to the activity and *after* the activities are concluded. Contrast with

ex-ante evaluation (also external but before the activities are executed) and with participatory evaluation which involves the stakeholders engaged in the very activities being evaluated.

Exclusion: action of excluding from a group, an action, or a location which leads to the social relegation or marginalization of persons not (or no longer) belonging to the dominant paradigm.

Focus group (or interest group): discussion group usually set up in a research undertaking or a transformational project and bringing together individuals belonging to the same social group or confronting the same situation, so as to decide the group’s position on a problem, proposals for action, or development of innovations.

Governance: organized decision making. This term incorporates the phenomenon of a multiplicity of locations and actors involved in the decision-making process; it refers to the setting up of flexible regulatory modalities, based on the partnership between the various stakeholders.

Ideotype: ideal type or one presenting characteristics desirable to the stakeholders, for example, a type of crop variety sought to be created with a potential for increased yield, a certain hardiness, a certain taste, ability to be processed in a certain manner, or other desirable characteristics.

Innovation: a technical, organizational, or institutional change, brought about by an individual or a social group; innovation can be incremental (minor change) or radical (major change). Innovation can refer to either a development process or its result.



Indicator: synthetic information, either quantitative or qualitative, which helps characterize a resource or process or which helps in the taking of decisions.

Interdisciplinarity: organization of scientific work involving persons from various scientific disciplines so that different and often complementary approaches can be used to tackle a problem.

Invention: a technical novelty thought up by researchers in their laboratories or on test plots, or conceived by farmers and tested in an area on their farms. Only when it is appropriated and put to use by general users, often after suitable adaptation, can we call it innovation.

Role playing: a simulation game in which several participants create and “live” a scenario using dialog, with each participant representing a different character.

Log book: document for recording, in a chronological sequence, the events that have taken place and/or the activities that have been conducted by the various stakeholders involved in a project; entries usually include the date, the names of participants, the specific circumstances, and often an interpretation.

Maieutics: technique for conducting a dialog with a person or group to “draw out,” using intelligent questions, from them their latent knowledge or perception of a situation which they would perhaps have been unable to conceptualize on their own.

Mediator: a person chosen for his or her personal qualities, experience and know-how, and who acts as intermediary for facilitating exchanges or

for conducting negotiations between stakeholders.

Method: set of rules and stages that allow, within the context of an approach, an activity to be undertaken or a tool to be used. A method usually needs to be adapted to each different situation, by involving the stakeholders in its creation or, at the very least, in its collective validation.

Municipe: the smallest politico-administrative division of territory in Brazil; equivalent to a district in most other countries.

Tool: a tangible technical object, such as a blackboard or a scale, or an intangible technical object, such as a cross-tabulation table, a list of tasks, or participatory mapping with the stakeholders, which allows an actor to perform some work.

Objectification: act of clarifying an idea, situation, or process – or making it perceptible – by using an analytical framework.

Paradigm: model for representing the world, relying on a well-defined basis (disciplinary matrix, conceptual model, or line of thought).

Partnership: association of different stakeholders who preserve their autonomy, but who pool their human and material resources, either through self-interest or by obligation, to attain a shared goal of resolving a problem.

Reflexivity: critical step-back appraisal by stakeholders of their own activities and behavior. Reflexive analysis helps build the capacities of an individual or a collective to examine its own professional practices with an aim of improving them.

Rule: an instruction that specifies how an individual or organization should



conduct itself in a given situation to be able to be part of a community or implement a project.

Set-up: set of measures taken, methods used, and relationships created in the context of a specific intervention. We can distinguish between governance set-ups, which are decision-making authorities, bringing together different types of stakeholders, and operational set-ups which organize the undertaking of planned activities by the stakeholders.

Systemic analysis: scientific method which applies systemic theory, i.e., it uses an overall approach to a situation or a problem. System analysis allows

complex subjects to be addressed by examining the components of a system and their interactions.

Value: that which is claimed to be true, beautiful, or good from a personal point of view or according to a particular society's criteria, and which describes norms of personal or social conduct based on morality, politics, or spirituality.



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Action research in partnership combines knowledge production, transformation of social realities and the building up of individual and collective skills. This book provides the foundation for understanding the theoretical background to action research in partnership in the field of agriculture and putting it into practice. The key intermediate steps and milestones of the approach are presented and discussed. The initial step – defining the problem and structuring the team that brings together all stakeholders – is crucial to the success of subsequent activities. The processes and methods that allow all stakeholders to be actively involved in the design, planning, monitoring and evaluation of results are described, as are those related to assessing the relevance of the results in terms of knowledge produced, capacity building of the actors or problem solving.

The book draws on a wide range of experiences in agriculture and rural development in developing countries, and especially in Africa and Latin America. Together, they illustrate how practitioners have responded to the challenges of implementing an approach that has to be tailored and fine-tuned to the specificities of each situation .

This book is intended for researchers and professionals working in the field of rural development. Representatives of rural and farmers' organizations in developing countries, often dealing with complex development challenges, will also find it useful.

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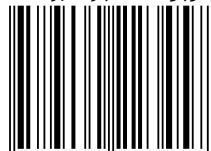
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